



Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder: 1230622
Solicitation Description: 0523C0394 - ASPHALT CRACK SEALANT
Proc Type: Agency Master Agreement

Solicitation Closes	Solicitation Response	Version
2023-06-15 14:30	SR 0803 ESR06122300000006268	1

VENDOR
 000000176598
 DJL MATERIAL & SUPPLY INC

Solicitation Number: ARFQ 0803 DOT2300000122
Total Bid: 276074.8499999999767169356346 **Response Date:** 2023-06-15 **Response Time:** 08:55:23
Comments:

FOR INFORMATION CONTACT THE BUYER
 Dusty J Smith
 304-414-6859
 dusty.j.smith@wv.gov

Vendor Signature X **FEIN#** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LOAD)	21600.000 LB		0.920000	19872.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic One or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	CRAFCO MASTIC ONE OR EQUAL (FULL TRUCK LOAD)	43200.000 LB		0.920000	39744.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic One or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	CRAFCO ROADSAVER 221 OR EQUAL (1/2 TRUCK LOAD)	22500.000 LB		0.537000	12082.50

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Roadsaver 221 or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	CRAFCO ROADSAVER 221 OR EQUAL (FULL TRUCK LOAD)	45000.000 LB		0.529000	23805.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Roadsaver 221 or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (1/2 TRUCK LOAD)	22500.000 LB		0.565000	12712.50

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Fiber Asphalt Sealant 540 or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (FULL TRUCK LOAD)	45000.000	LB	0.559000	25155.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Fiber Asphalt Sealant 540 or equal meets all specifications.

Extended Description:
AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	CRAFCO POLYFIBER 542 OR EQUAL (1/2 TRUCK LOAD)	22500.000	LB	0.580000	13050.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO PolyFiber 542 or equal meets all specifications.

Extended Description:
AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	CRAFCO POLYFIBER 542 OR EQUAL (FULL TRUCK LOAD)	45000.000	LB	0.580000	26100.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO PolyFiber 542 or equal meets all specifications.

Extended Description:
AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
9	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LD) MELTABLE PACKAGING	22425.000	LB	0.980000	21976.50

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic One or equal meets all specifications.

Extended Description:
AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
10	CRAFCO MASTIC ONE OR EQUAL FULL TRUCK LD -MELTABLE PACKAGING	44850.000	LB	0.960000	43056.00

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic One or equal meets all specifications.

Extended Description:
AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
11	CRAFCO MASTIC ROADSAVER 221 OR EQUAL 1/2 TRK LD MELTABLE PKG	22050.000	LB	0.589000	12987.45

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic Roadsaver 221 or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
12	CRAFCO MASTIC ROADSAVER221 OR EQUAL FULL TRK LD MELTABLE PKG	44100.000	LB	0.579000	25533.90

Comm Code	Manufacturer	Specification	Model #
31201700			

Commodity Line Comments: CrafcO Mastic Roadsaver 221 or equal meets all specifications.

Extended Description:

AS PER SPECIFICATIONS



**State of West Virginia
Agency Request for Quote
Chemicals**

Proc Folder: 1230622			Reason for Modification:
Doc Description: 0523C0394 - ASPHALT CRACK SEALANT			
Proc Type: Agency Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2023-05-31	2023-06-13 14:30	ARFQ 0803 DOT2300000122	1

BID RECEIVING LOCATION	
BUDGET & PROCUREMENT DIVISION OF HIGHWAYS BLDG 5, RM A-317 1900 KANAWHA BLVD E CHARLESTON WV 25305 US	

VENDOR	
Vendor Customer Code: 000000176598	
Vendor Name : DJL Material & Supply, Inc.	
Address : P.O. Box 5293	
Street :	
City : Akron	Country : USA
State : Ohio	Zip : 44334
Principal Contact : Michael Leahy	
Vendor Contact Phone: 330 922-3630	Extension:

FOR INFORMATION CONTACT THE BUYER	
Dusty J Smith 304-414-6859 dusty.j.smith@wv.gov	

Vendor Signature X		FEIN# 34-1318958	DATE 6-9-2023
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All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION

THE WEST VIRIGNIA DEPARTMENT OF TRANSPORTATION- BUDGET AND PROCUREMENT DIVISION - THIS IS AN OPEN END CONTRACT FOR ASPHALT CRACK SEALANT PER ATTACHED DOCUMENTS.

QUESTIONS REGARDING THE SOLICITATION MUST BE SUBMITTED IN WRITING TO DOTPROCUREMENTTECHQUES@WV.GOV PRIOR TO THE QUESTION PERIOD DEADLINE CONTAINED IN THE INSTRUCTIONS TO VENDORS SUBMITTING BIDS.

*****NOTICE*****

WE DO NOT ACCEPT EMAIL BIDS
MUST USE ONE THE FOLLOWING TO SUBMIT A BID:

- * UPLOAD TO OASIS
- * HAND DELIVERY
- * MAIL IN HARD COPY
- *FAX

MAKE SURE YOU DOWNLOAD ALL INFORMATION
THE- COMPLETE SOLICITATION-PRICING PAGES-SIGN THE PAGES THAT NEED SIGNED
PLEASE NOTE THAT TO BE AWARDED THIS CONTRACT YOU WILL BE TO A REGISTER VENDOR WITH WV STATE PURCHASING, AND COMPLIANT WITH SEVERAL AGENCIES SUCH AS THE WVSOS, TAX DEPARTMENT, WORKER'S COMPENSATION, AND UNEMPLOYMENT INSURANCE

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS DISTRICT FIVE		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
PO BOX 99 BURLINGTON US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LOAD)	21600.00000	LB	\$0.92/#	\$19872.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Box Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS

MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	CRAFCO MASTIC ONE OR EQUAL (FULL TRUCK LOAD)	43200.00000	LB	\$0.92/#	\$39744.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Box Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	CRAFCO ROADSaver 221 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$.537/#	\$12082.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	CRAFCO ROADSaver 221 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.529/#	\$23805.0000

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$0.565/#	\$12712.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Fiber Asphalt Sealant 540	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.559/#	\$25155.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Fiber Asphalt Sealant 540	Box Packaging

Extended Description:
 AS PER SPECIFICATIONS
 MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	CRAFCO POLYFIBER 542 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$0.58/#	\$13050.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Polyfiber 542	Box Packaging

Extended Description:
 AS PER SPECIFICATIONS
 MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	CRAFCO POLYFIBER 542 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.58/#	\$26100.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Polyfiber 542	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LD) MELTABLE PACKAGING	22425.00000	LB	\$0.98/#	\$21976.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Meltable Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	CRAFCO MASTIC ONE OR EQUAL FULL TRUCK LD -MELTABLE PACKAGING	44850.00000	LB	\$0.96/#	\$43056.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Meltable Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS

MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
11	CRAFCO MASTIC ROADSaver 221 OR EQUAL 1/2 TRK LD MELTABLE PKG	22050.00000	LB	\$0.589/#	\$12987.45

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Meltable Packaging

Extended Description:
AS PER SPECIFICATIONS

Meets ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV US
-------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
12	CRAFCO MASTIC ROADSaver221 OR EQUAL FULL TRK LD MELTABLE PKG	44100.00000	LB	\$0.579/#	\$25533.90

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Meltable Packaging

Extended Description:
 AS PER SPECIFICATIONS
 MEETS ALL SPECIFICATIONS

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Technical questions due by 10 am ET	2023-06-07

INSTRUCTIONS TO VENDORS SUBMITTING BIDS
(Agency Delegated Procurements Only)

1. REVIEW DOCUMENTS THOROUGHLY: The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

2. MANDATORY TERMS: The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

2A. PREBID MEETING: The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A MANDATORY PRE-BID meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf. The required attribution of attendance to a single vendor should be addressed during the pre-bid but may occur at any time deemed appropriate by the Purchasing Division.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in, but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

3. BID SUBMISSION: All bids must be submitted electronically through wvOASIS or signed and delivered by the Vendor to the Agency on or before the date and time of the bid opening. Any bid received by the Agency staff is considered to be in the possession of the Agency and will not be returned for any reason.

3A. BID SUBMISSION

A bid that is not submitted electronically through wvOASIS should contain the information listed below on the face of the envelope or the bid may be rejected by the Agency.

SEALED BID: 0523C0394 - ASPHALT CRACK SEALANT
BUYER: Dusty Smith
SOLICITATION NO.: ARFQ DOT23*122
BID OPENING DATE: 06/13/2023
BID OPENING TIME: 02:30 pm ET
FAX NUMBER: 304-558-0047

4. ADDENDUM ACKNOWLEDGEMENT: Changes or revisions to this Solicitation will be made by an official addendum issued by the Agency. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

5. BID FORMATTING: Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

6. ALTERNATE MODEL OR BRAND: Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under West Virginia Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

7. EXCEPTIONS AND CLARIFICATIONS: The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

8. REGISTRATION: Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

9. UNIT PRICE: Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

10. PREFERENCE: Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: <http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

10A. RECIPROCAL PREFERENCE: The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, if reciprocal preference is requested by a West Virginia resident vendor, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: <http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf>.

11. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES: For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37 and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

12. ELECTRONIC FILE ACCESS RESTRICTIONS: Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Agency staff immediately upon bid opening. The Agency will consider any file that cannot be immediately access and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires, and therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or removed access restrictions to allow the Agency to print or electronically save documents provided that those documents are viewable by the Agency prior to obtaining the password or removing the access restriction.

13. NON-RESPONSIBLE: The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform, or lacks the integrity and reliability to assure good-faith performance.”

14. ACCEPTANCE/REJECTION: The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

15. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor’s entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., 5G-1-1 et seq. and the Freedom of Information Act in West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled “confidential,” “proprietary,” “trade secret,” “private,” or labeled with any other claim against public disclosure of the documents, to include any “trade secrets” as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**GENERAL TERMS AND CONDITIONS:
(Agency Delegated Procurements Only)**

1. CONTRACTUAL AGREEMENT: Issuance of an Award Document signed by the Agency and approved as to form by the Attorney General's office, if required, constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

2. DEFINITIONS: As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

2.1. "Agency" or "Agencies" means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

2.2. "Bid" or "Proposal" means the vendors submitted response to this solicitation.

2.3. "Contract" means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

2.4. "Director" means the Director of the West Virginia Department of Administration, Purchasing Division.

2.5. "Purchasing Division" means the West Virginia Department of Administration, Purchasing Division.

2.6. "Award Document" means the document signed by the Agency that identifies the Vendor as the contract holder.

2.7. "Solicitation" means the official notice of an opportunity to supply the State with goods or services.

2.8. "State" means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

2.9. "Vendor" or "Vendors" means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

3. CONTRACT TERM; RENEWAL; EXTENSION: The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

Term Contract

Initial Contract Term: This Contract becomes effective on award _____ and the initial contract term extends until one (1) year.

Renewal Term: This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor. Any request for renewal should be delivered to the Agency thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to three (3) successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited.

Alternate Renewal Term – This contract may be renewed for _____ successive _____ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor and Agency.

Delivery Order Limitations: In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

Fixed Period Contract: This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within _____ days.

Fixed Period Contract with Renewals: This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within _____ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that maintenance, monitoring, or warranty services will be provided for _____ year(s) thereafter.

One Time Purchase: The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

Construction/Project Oversight: This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the State Agency (or another page identified as _____), and continues until the project for which the vendor is providing oversight is complete.

Other: See attached.

4. AUTHORITY TO PROCEED: Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for “Fixed Period Contract” or “Fixed Period Contract with Renewals” has been checked in Section 3 above. If either “Fixed Period Contract” or “Fixed Period Contract with Renewals” has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

5. QUANTITIES: The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

Open End Contract: Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

Service: The scope of the service to be provided will be more clearly defined in the specifications included herewith.

Combined Service and Goods: The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

One Time Purchase: This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General’s office.

Construction: This Contract is for construction activity more fully defined in the specifications.

6. EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One Time Purchase contract.

7. REQUIRED DOCUMENTS: All of the items checked below must be provided to the Agency by the Vendor as specified below.

LICENSE(S) / CERTIFICATIONS / PERMITS: In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

8. INSURANCE: The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below on each policy prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies Vendor shall provide the Agency with proof that the insurance

mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether or not that insurance requirement is listed in this section.

Vendor must maintain:

Commercial General Liability Insurance in at least an amount of:
1,000,000 per occurrence.

Automobile Liability Insurance in at least an amount of: 1,000,000 per occurrence.

Professional/Malpractice/Errors and Omission Insurance in at least an amount of:
_____ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

Commercial Crime and Third Party Fidelity Insurance in an amount of:
_____ per occurrence.

Cyber Liability Insurance in an amount of: _____ per occurrence.

Builders Risk Insurance in an amount equal to 100% of the amount of the Contract.

Pollution Insurance in an amount of: _____ per occurrence.

Aircraft Liability in an amount of: _____ per occurrence.

9. WORKERS' COMPENSATION INSURANCE: Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

10. LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

_____ for _____

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

11. ACCEPTANCE: Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

12. PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

13. PAYMENT IN ARREARS: Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software licenses, subscriptions, or maintenance may be paid annually in advance.

14. PAYMENT METHODS: Vendor must accept payment by electronic funds transfer or P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

15. ADDITIONAL FEES: Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

16. TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

17. FUNDING: This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

18. CANCELLATION: The State reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Agency may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

19. TIME: Time is of the essence with regard to all matters of time and performance in this Contract.

20. APPLICABLE LAW: This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code or West Virginia Code of State Rules is void and of no effect.

20A. VENUE: All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

21. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances.

22. ARBITRATION: Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.

23. MODIFICATIONS: This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary, no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor.

24. WAIVER: The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

25. SUBSEQUENT FORMS: The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

26. ASSIGNMENT: Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency and any other government agency or office that may be required to approve such assignments.

27. WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

28. STATE EMPLOYEES: State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

29. PRIVACY, SECURITY, AND CONFIDENTIALITY: The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in www.state.wv.us/admin/purchase/privacy.

30. YOUR SUBMISSION IS A PUBLIC DOCUMENT: Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

31. LICENSING: In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities. Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section.

32. ANTITRUST: In submitting a bid to, signing a contract with, or accepting an Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

33. VENDOR NON-CONFLICT: Neither Vendor nor its representatives are permitted to have any interest, nor shall they acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

34. VENDOR RELATIONSHIP: The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing. Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

35. INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

36. NO DEBT CERTIFICATION: In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

37. CONFLICT OF INTEREST: Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

38. REPORTS: Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at purchasing.division@wv.gov.

39. BACKGROUND CHECK: In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

40. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS: Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.

b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:

c. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or

d. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

41. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL: In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a "substantial labor surplus area", as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the

item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

42. PROHIBITION AGAINST USED OR REFURBISHED: Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

43. VOID CONTRACT CLAUSES – This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Michael Leahy, Manager

(Printed Name and Title)
P.O. Box 5293, Akron, Ohio 44334-0293

(Address)
330-922-3630 330-922-8070

(Phone Number) / (Fax Number)
djlmaterial@yahoo.com


(E-mail address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; ; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the Vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

DJL Material & Supply, Inc.

(Company)



(Signature of Authorized Representative)

Michael Leahy, Manager

(Printed Name and Title of Authorized Representative)

6/9/2023

(Date)

330-922-3630 330-922-8070

(Phone Number) (Fax Number)

ADDENDUM ACKNOWLEDGEMENT FORM

SOLICITATION NO.:

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification. Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|-----------------------------------------|------------------------------------------|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

DJL Material & Supply, Inc.

Company

Authorized Signature

6/12/2023

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

SPECIFICATIONS

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of West Virginia Division of Highways, District Five to establish an open-end contract for the purchase of asphalt crack sealant, as needed.

2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in section 2 of the General Terms and Conditions.
 - 2.1 **“Contract Item” or “Contract Items”** means the list of items identified in Section 3.1 below and on the Pricing Pages.

 - 2.2 **“Pricing Pages”** means the schedule of prices, estimated order quantity, and totals contained in wvOASIS or attached hereto as Exhibit A, and used to evaluate the Solicitation responses.

 - 2.3 **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division..

3. GENERAL REQUIREMENTS:

- 3.1 **Contract Items and Mandatory Requirements:** Vendor shall provide Agency with the Contract Items listed below on an open-end and continuing basis. Contract Items must meet or exceed the mandatory requirements as shown below.

Vendor is required to provide agency with a list of three field test locations in the state of West Virginia that have applied the contract items listed as numbers 1-8 on the Pricing Page, Exhibit A. Pricing Page items 9-12 are not required. The list shall include contact name, telephone number, and year of sealant usage for each contract item. Product data sheets and application instructions for each contract item shall be included in the bid.

3.1.1 CRAFCO Mastic One or Equal

- 3.1.1.1 Or Equal product must comply with ASTM D8260 Type I.

- 3.1.1.2 Or Equal product must be formulated to provide neat, feathered edge installation.

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

3.1.1.3 Or Equal product must be considered a long-term solution allowing 5 or more years of performance.

3.1.1.4 Patcher should be provided at no cost for at least 6 months after each truckload is delivered.

3.1.1.5 If vendor is bidding an Or Equal sealant, product specifications must be included with the bid.

3.1.2 Meltable Packaging for CRAFCO Mastic One or Equal

3.1.2.1 Meltable packaging should be bid as an Equal to PLEXI-melt or NoBox meeting specifications listed below:

- Meltable packaging must quickly and thoroughly melt into material at normal operation temperatures without affecting product installation characteristics or performance.
- Must meet OSHA and GHS requirements for this type of product.
- Block size must work with all melters.
- If Vendor is bidding an Or Equal product, specifications must be included with the bid.

3.1.3 CRAFCO RoadSaver 221 or Equal

3.1.3.1 Or Equal product must be resistant to cracking in the winter and tracking or pick-up by vehicle tires in hot climates.

3.1.3.2 Or Equal product must meet all requirements of ASTM D6690 (AASHTO M324). Type II “Joint and Crack Sealants, Hot-Applied for Concrete and Asphalt Pavements.

3.1.3.3 Or Equal product must also meet requirements of ASTM D6690 (AASHTO M324), type I and Federal Specification SS-S-164.

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

3.1.3.4 If vendor is bidding an Or Equal sealant, product specifications must be included with the bid.

3.1.3.5 Vendor must allow DOH the opportunity to mix two different sealants on a full truckload order.

3.1.4 Meltable Packaging for CRAFCO Roadsaver 221 Or Equal

3.1.4.1 Meltable packaging should be bid as an Or Equal to PLEXI-melt or NoBox meeting specifications listed below:

- Meltable packaging must quickly and thoroughly melt into material at normal operation temperatures without affecting product installation characteristics or performance.
- Must meet OSHA and GHS requirements for this type of product.
- Block size must work with all melters.
- If Vendor is bidding an Or Equal product, specifications must be included with the bid.

3.1.5 CRAFCO Fiber Asphalt Sealant 540 or Equal

3.1.5.1 Or Equal product must be resistant to cracking in the winter and tracking or pick-up by vehicle tires in hot climates.

3.1.5.2 Or Equal product must meet the requirements of the standards listed below:

- ASTM D5329
- ASTM D113
- ASTM D5167
- ASTM D6690

3.1.5.3 Or Equal product must have a minimum melt temperature of 475°F and a minimum tensile strength of 70,000 PSI.

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

3.1.5.4 If vendor is bidding an Or Equal sealant, product specifications must be included with the bid.

3.1.5.5 Vendor must allow DOH the opportunity to mix two different sealants on a full truckload order.

3.1.6 CRAFCO Polyfiber 542 or Equal

3.1.6.1 Or Equal product must be resistant to cracking in the winter and tracking or pick-up by vehicle tires in moderate climates.

3.1.6.2 Or Equal product must meet the requirements of the standards listed below:

- ASTM D5329
- ASTM D36
- ASTM D167

3.1.6.3 Or Equal product must have a minimum melt temperature of 475°F and a minimum tensile strength of 70,000 PSI.

3.1.6.4 Or Equal product must be a blend of high-quality polymer modified asphalt sealant and a minimum of 1% by weight of polyester fibers.

3.1.6.5 If vendor is bidding an Or Equal sealant, product specifications must be included with the bid.

3.1.6.6 Vendor must allow DOH the opportunity to mix two different sealants on a full truckload order.

4. CONTRACT AWARD:

4.1 Contract Award: The Contract is intended to provide Agencies with a purchase price on all Contract Items. The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total cost as shown on the Pricing Pages.

4.2 Pricing Pages: Vendor should complete the Pricing Pages by entering an amount in the Unit Price column for each product and quantity listed on the

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

Pricing Page. Each product has been broken into half truck load and full truck load delivery amounts. Vendors should complete the Pricing Pages in their entirety as failure to do so may result in Vendor's bids being disqualified.

The Pricing Pages contain a list of the Contract Items and estimated purchase volume. The estimated purchase volume for each item represents the approximate volume of anticipated purchases only. No future use of the Contract or any individual item is guaranteed or implied.

Vendor should electronically enter the information into the Pricing Pages through wvOASIS, if available, or as an electronic document. In most cases, the Vendor can request an electronic copy of the Pricing Pages for bid purposes by sending an email request to the following address: Kristy.E.James@wv.gov

5. ORDERING AND PAYMENT:

- 5.1 Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability to accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.

Vendor MUST allow DOH to mix two different sealants on a full truckload order.

- 5.2 Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

6. DELIVERY AND RETURN:

- 6.1 Delivery Time:** Vendor shall deliver standard orders within 30 working days after orders are received. Vendor shall deliver emergency orders within 10 working day(s) after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.
- 6.2 Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party.

Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

- 6.3 Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders provided that Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.
- 6.4 Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable, or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.
- 6.5 Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

7. VENDOR DEFAULT:

7.1 The following shall be considered a vendor default under this Contract.

- 7.1.1 Failure to provide Contract Items in accordance with the requirements contained herein.
- 7.1.2 Failure to comply with other specifications and requirements contained herein.

REQUEST FOR QUOTATION
Asphalt Crack Sealant – 0523C0394

7.1.3 Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.

7.1.4 Failure to remedy deficient performance upon request.

7.2 The following remedies shall be available to Agency upon default.

7.2.1 Immediate cancellation of the Contract.

7.2.2 Immediate cancellation of one or more release orders issued under this Contract.

7.2.3 Any other remedies available in law or equity.

8. MISCELLANEOUS:

8.1 No Substitutions: Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.

8.2 Vendor Supply: Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid, Vendor certifies that it can supply the Contract Items contained in its bid response.

8.3 Reports: Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

8.4 Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Michael Leahy
Telephone Number: 330-922-3630
Fax Number: 330-922-8070
Email Address: djlmaterial@yahoo.com

**Exhibit B – Delivery Locations
For District Five, Division of Highways
0523C0394**

Berkeley Co. Headquarters, 1867 Rockcliff Drive, Martinsburg, WV 25401

Grant Co. Headquarters, 2599 North For Hwy., Petersburg, WV 26847

New Grant Co. Headquarters, 930 Lunice Creek Hwy., Petersburg, WV 26847

Hampshire Co. Hq., 56 DOH Drive, Romney, WV 26757

Hardy Co. Hq., 2104 SR 55, Moorefield, WV 26836

Knobley Expressway, 167 Knobley Access Rd., Maysville, WV 26833

Jefferson Co. Hq., 1301 Leetown Pike, Kearneysville, WV 25430

Mineral Co. Hq., 10760 Northwestern Turnpike, New Creek, WV 26743

Morgan Co. Hq., 166 DOH Lane, Berkeley Springs, WV 25411

District Five Hq., 2120 Northwestern Turnpike, Burlington, WV 26710.

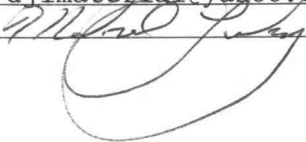
PRICING PAGE - EXHIBIT A

0523C0394

Item Number	Quantity	Unit of Measure	Description	Unit Price	Total Item Cost
1	21,600 (1/2 Truck Load)	LB	CRAFCO Mastic One or Equal	\$0.92/#	\$19872.00
2	43,200 (Full Truck Load)	LB	CRAFCO Mastic One or Equal	\$0.92/#	\$39744.00
3	22,500 (1/2 Truck Load)	LB	CRAFCO RoadSaver 221 or Equal	\$0.537/#	\$12082.50
4	45,000 (Full Truck Load)	LB	CRAFCO RoadSaver 221 or Equal	\$0.529/#	\$23805.00
5	22,500 (1/2 Truck Load)	LB	CRAFCO Fiber Asphalt Sealant 540 Or Equal	\$0.565/#	\$12712.50
6	45,000 (Full Truck Load)	LB	CRAFCO Fiber Asphalt Sealant 540 Or Equal	\$0.559/#	\$25155.00
7	22,500 (1/2 Truck Load)	LB	CRAFCO Polyfiber 542 or Equal	\$0.58/#	\$13050.00
CRA	45,000 (Full Truck Load)	LB	CRAFCO Polyfiber 542 or Equal	\$0.58/#	\$26100.00
9	22,425 (1/2 Truck Load)	LB	CRAFCO Mastic One or Equal delivered in meltable packaging as per specs	\$0.98/#	\$21976.50
10	44,850 (Full Truck Load)	LB	CRAFCO Mastic One or Equal delivered in meltable packaging as per specs	\$0.96/#	\$43056.00
11	22,050 (1/2 Truck Load)	LB	CRAFCO RoadSaver 221 or Equal delivered in meltable packaging as per specs	\$0.589/#	\$12987.45
12	44,1000 (Full Truck Load)	LB	CRAFCO RoadSaver 221 or Equal delivered in meltable packaging as per specs	\$0.579/#	\$25533.90
TOTAL					\$276074.85

Unit Price should include all applicable costs such as credit card fees, delivery, fuel surcharges, etc.

Vendor must allow DOH to mix two different sealants on a full truckload order.

Vendor Information	
Company Name	DJL Material & Supply, Inc.
Contract Manager	Michael Leahy
Address	P.O. Box 5293, Akron, Ohio 44334-0293
Phone Number	330-922-3630
Email	djlmaterial@yahoo.com
Signature	

D.J.L. MATERIAL & SUPPLY, INC.

P.O. Box 5293
Akron, Ohio 44334-0293

Office
330-922-3630

Fax
330-922-8070

DATE: June 12, 2023

3. GENERAL REQUIREMENTS:

3.1 Contract Items and Mandatory Requirements:

Vendor is required to provide agency with a list of three field test locations in the state of West Virginia That have applied the contract items listed as number 1-8 on the Price Page, Exhibit A.

The list shall include contact name, telephone number, and year of sealant usage for each contract item. Product Data Sheet and application instructions for each contract item shall be included in the bid.

Item Number 1 & 2: Crafcoc Mastic One

West Virginia Department of Highway
District 1
Jackie Blankenship
304-552-8100
Year: 10/31/2022

West Virginia Department of Highway
District 3
Hunter Booth
304-494-1175
Year: 3/19/2023

West Virginia Department of Highway
District 5
Travis Ray
681-320-2005 or 304-289-3521

Item Number 3-4: Crafcoc Roadsaver 34221

West Virginia Department of Highway
District 1
Jackie Blankenship
304-552-8100
Year: 3/29/2022

West Virginia Department of Highway
District 7
Mark McHenry/Melissa Jordan
304-269-0439
Year: 3/7/2023

West Virginia Department of Highway
District 9
David Bucklen
304-647-7557
Year: 9/1/2021

D.J.L. MATERIAL & SUPPLY, INC.

P.O. Box 5293
Akron, Ohio 44334-0293

Office
330-922-3630

Fax
330-922-8070

Item Number 5-6: Crafc0 Fiber Asphalt Sealant 540

West Virginia Department of Highway
District 6
Timothy Little
304-312-1606
Year: 3/16/2023

West Virginia Department of Highway
District 1
Jackie Blankenship
304-552-8100
Year: 5/31/2023

Town of Moorefield
Doug Mongold
304-257-7006
Year: 11/11/2022

Item Number 7-8: Crafc0 Polyfiber 542

West Virginia Department of Highway
District 1
Jackie Blankenship
304-552-8100
Year: 10/15/2023

Town of Moorefield
Doug Monegold
304-257-7006
Year: 11/4/2022

City of Morgantown
Paul Straight
304-290-3460
Year: 6/18/2023



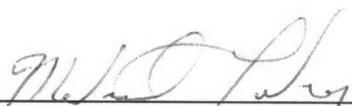
State of West Virginia
Agency Request for Quote
Chemicals

Proc Folder: 1230622		Reason for Modification:	
Doc Description: 0523C0394 - ASPHALT CRACK SEALANT		Addendum 1	
Proc Type: Agency Master Agreement			
Date Issued	Solicitation Closes	Solicitation No	Version
2023-06-12	2023-06-15 14:30	ARFQ 0803 DOT2300000122	2

BID RECEIVING LOCATION	
BUDGET & PROCUREMENT DIVISION OF HIGHWAYS BLDG 5, RM A-317 1900 KANAWHA BLVD E CHARLESTON WV 25305 US	

VENDOR			
Vendor Customer Code:	000000176598		
Vendor Name :	DJL Material & Supply, Inc.		
Address :	P.O. Box 5293		
Street :			
City :	Akron		
State :	Ohio	Country : USA	Zip : 44334
Principal Contact :	Michael Leahy		
Vendor Contact Phone:	330-922-3630	Extension:	

FOR INFORMATION CONTACT THE BUYER Dusty J Smith 304-414-6859 dusty.j.smith@wv.gov

Vendor Signature X 	FEIN# 34-1318958	DATE 6-13-2023
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ADDITIONAL INFORMATION

ADDENDUM 1 IS ISSUED FOR THE FOLLOWING REASONS:

- 1. TO ATTACH RESPONSES TO QUESTIONS FROM VENDORS
- 2. MODIFY BID OPENING DATE AND TIME

NO OTHER CHANGES

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS DISTRICT FIVE		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
PO BOX 99 BURLINGTON US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LOAD)	21600.00000	LB	\$0.92/#	\$19,872.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Box Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS

MEETS ALL SPECIFICATIONS

INVOICE TO		SHIP TO	
DIVISION OF HIGHWAYS DISTRICT FIVE		STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER	
PO BOX 99 BURLINGTON US	WV	No City US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	CRAFCO MASTIC ONE OR EQUAL (FULL TRUCK LOAD)	43200.00000	LB	\$0.92/#	\$39,744.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Box Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS

MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV US
-------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	CRAFCO ROADSaver 221 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$0.537/#	\$12,082.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Box Packaging

Extended Description:
 AS PER SPECIFICATIONS
 MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS DISTRICT FIVE PO BOX 99 BURLINGTON WV US	STATE OF WEST VIRGINIA VARIOUS LOCATIONS AS INDICATED BY ORDER No City WV US
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Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	CRAFCO ROADSaver 221 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.529/#	\$23,805.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Roadsaver 34221	Box Packaging

Extended Description:
 AS PER SPECIFICATIONS
 MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
------------	---------

DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$0.565/#	\$12,712.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Fiber Asphalt Sealant 540	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	CRAFCO FIBER ASPHALT SEALANT 540 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.559/#	\$25,155.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Fiber Asphalt Sealant 540	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	CRAFCO POLYFIBER 542 OR EQUAL (1/2 TRUCK LOAD)	22500.00000	LB	\$0.58/#	\$13,050.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Polyfiber 542	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	CRAFCO POLYFIBER 542 OR EQUAL (FULL TRUCK LOAD)	45000.00000	LB	\$0.58/#	\$26,100.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Polyfiber 542	Box Packaging

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	CRAFCO MASTIC ONE OR EQUAL (1/2 TRUCK LD) MELTABLE PACKAGING	22425.00000	LB	\$0.98/#	\$21,976.50

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Meltable Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

INVOICE TO	SHIP TO
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DIVISION OF HIGHWAYS
DISTRICT FIVE

STATE OF WEST VIRGINIA
VARIOUS LOCATIONS AS
INDICATED BY ORDER

PO BOX 99
BURLINGTON WV
US

No City WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	CRAFCO MASTIC ONE OR EQUAL FULL TRUCK LD -MELTABLE PACKAGING	44850.00000	LB	\$0.96/#	\$43,056.00

Comm Code	Manufacturer	Specification	Model #
31201700	Crafco, Inc.	Mastic One #33339	Meltable Packaging with Patcher II Melter

Extended Description:
AS PER SPECIFICATIONS
MEETS ALL SPECIFICATIONS

SOLICITATION NUMBER: ARFQ DOT2300000122

Addendum Number: 1

The purpose of this addendum is to modify the solicitation identified as (“Solicitation”) to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation:

ADDENDUM 1 IS ISSUED FOR THE FOLLOWING REASONS:

1. TO ATTACH RESPONSES TO QUESTIONS FROM VENDORS
2. MODIFY BID OPENING DATE AND TIME

NO OTHER CHANGES

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

SOLICITATION: ARFQ-0803-DOT2300000122-1

0523C0394 - ASPHALT CRACK SEALANT

Question #1 - If vendor is bidding the Crafcoc Products, is vendor required to provide information below?

Answer: If vendor is bidding CRAFCO products listed in specifications, the information highlighted below is not required. It is required for Or Equal products.

Question #2 – On Item#1 Crafcoc Mastic One, is vendor required to provide PATCHER at no cost for 6 months?

Answer: Yes

Vendor is required to provide agency with a list of three field test locations in the state of West Virginia that have applied the contract items listed as numbers 1-8 on the Pricing Page, Exhibit A. Pricing Page items 9-12 are not required. The list shall include contact name, telephone number, and year of sealant usage for each contract item. Product data sheets and application instructions for each contract item shall be included in the bid. 3.1.1 CRAFCO Mastic One or Equal 3.1.1.1 Or Equal product must comply with ASTM D8260 Type I. 3.1.1.2 Or Equal product must be formulated to provide neat, feathered edge installation. REQUEST FOR QUOTATION Asphalt Crack Sealant – 0523C0394 Revised 10/27/2014 3.1.1.3 Or Equal product must be considered a long-term solution allowing 5 or more years of performance. 3.1.1.4 Patcher should be provided at no cost for at least 6 months after each truckload is delivered. 3.1.1.5 If vendor is bidding an Or Equal sealant, product specifications must be included with the bid

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: ARFQ DOT2300000122

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

- | | |
|----------------------------------------------------|------------------------------------------|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

DJL Material & Supply, Inc.

Company



Authorized Signature

6-13-2023

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/14/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Arthur J. Gallagher Risk Management Services, LLC 3737 Embassy Pkwy Suite 260 Akron OH 44333	CONTACT NAME: Marilyn Snodgrass	PHONE (A/C, No., Ext): 330-665-7955	FAX (A/C, No.): 330-665-7979
	E-MAIL ADDRESS: Marilyn_Snodgrass@ajg.com		
INSURED DJL Material & Supply Inc. PO Box 5293 Akron OH 44334-0293	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Cincinnati Insurance Company		10677
	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E:		

COVERAGES

CERTIFICATE NUMBER: 1913446079

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:	Y	EPP0148308	6/27/2022	6/27/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		EPP0148308	6/27/2022	6/27/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 0		EPP0148308	6/27/2022	6/27/2023	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A				<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Written notice of cancellation for non-payment of premium will be provided to the Named Insured 10 days prior to the date of cancellation and 30 days prior for any other type of cancellation per Ohio State Law and policy provisions.

Certificate holder is listed as Additional Insured per form GA472 (09/17). Bid #ARFQ0803DOT2300000122

CERTIFICATE HOLDER**CANCELLATION**

State of West Virginia
 1900 Kanawha Blvd E
 Bldg 5
 Charleston WV 25305-0130
 USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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READ BEFORE USING THIS PRODUCT

GENERAL: These products are hot-applied, single component polymer/rubber modified products supplied in solid form used to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. These products are not fuel resistant and should not be used in fuel or oil spill prone areas. To use boxed materials, product is removed from the package, heated in a melter and applied to the pavement. For products in meltable packaging (PlexiMELT or NoBOX) and RoadSaver Gmy materials, the entire package is added to the melter. Details on product specifications, climate and usage suitability, and product selection are contained in Product Data Sheets.

MELTING AND APPLICATION: These products must be melted in jacketed double boiler melters with effective agitation that meet requirements of Appendix X1.1 of ASTM D6690. CrafcO Supershot, EZ Series 2, and EZ Pour melters are recommended. Do not use direct fired or air heated machines unless stated on the product data sheet. Heat transfer oil should not exceed 525°F (274°C). The melter must be capable of safely heating product to 400°F (204°C). **CAUTION:** Stop agitation when adding product to prevent splashing. Product is heated to between the minimum application temperature and the maximum heating temperature which are shown on product containers and Product Data Sheets. These products are most effectively applied with pressure feed wand systems. RoadSaver, PolyFlex and Parking Lot products can also be applied using gravity feed pour pots (Part No.40200 and 40201).

APPLICATION LIFE: Application life, when heated to application temperature, is approximately 12 to 15 hours and may be extended by adding fresh product. Product shall be agitated during installation. Product may be reheated once to application temperature, after initial heat up. When application life has been exceeded, RoadSaver and Parking Lot products will thicken, become “stringy” and may then gel. If this occurs, product should immediately be removed from the melter and discarded. Asphalt Rubber and PolyFlex products will soften when overheated or heated for too long.

PAVEMENT TEMPERATURES: Apply product when pavement temperature exceeds 40°F (4°C). Lower temperatures may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance (Part No. 45650) that puts no direct flame on the pavement. If installing at lower pavement temperature than 40°F (4°C), extreme care should be used to ensure that cracks or joints are dry and free from contaminants. Product temperature should be maintained at the maximum heating temperature. If installing at night, assure dew is not forming on pavement. Applied product should be checked by qualified personnel to assure adequate adhesion.

TRAFFIC CONTROLS: Place traffic controls in accordance with Part 6, Temporary Controls, of the FHWA Manual on Uniform Traffic Control devices (MUTCD) to protect the work site for the duration of the repairs.

CRACK / JOINT CLEANING: For appropriate adhesion, cracks or joints must be thoroughly clean and dry immediately prior to product installation. After widening or debris removal, and just prior to product installation, final cleaning shall use high pressure 90 psi (620kpa) minimum, dry, oil free compressed air to remove any remaining dust.

Both sides of the crack or joint shall be cleaned. Surfaces should be inspected to assure adequate cleanliness and dryness.

ASPHALT PAVEMENT CRACK SEALING: Crack sealing consists of installing extensible sealants into routed reservoirs in working cracks in pavements in good condition.

Reservoir Cutting: Based on the 98% LTPPBIND temperature range (difference from high to low), cracks are to be routed as follows:

Temperature Grade Range	Reservoir Width	Reservoir Depth
80°C or less	½" (12 mm)	¾" (19 mm)
86°C	¾" (19 mm)	¾" (19 mm)
92°C	1 1/8" (28 mm)	½" (12 mm)
98° or greater	1 ½" (38 mm)	½" (12 mm)

Reservoir width should not exceed 1 ½" (38 mm). Cutting should remove at least 1/8" (3 mm) from each side and produce vertical, intact surfaces with no loosely bonded aggregate. The pavement should be sound enough to resist significant spalling during cutting. Final reservoir width should not exceed twice the cutter width or 1 ½" (38 mm) maximum.

Installation and Finishing: After cleaning, sealant at the required temperature is installed in the reservoir. Sealant can be installed with up to a 3/8" (10 mm) underfill, flush fill, or with an overband cap that does not exceed 1/16" (1.5mm) above the pavement surface, and not greater than a 2" (50 mm) width beyond crack edges, depending on project specifications. These configurations are achieved using appropriate wand tips, shoes or squeegees. To reduce surface tack, CrafcO DeTack or other approved material may be applied.

ASPHALT PAVEMENT CRACK FILLING: Crack filling consists of installing flexible, traffic resistant product into prepared, cleaned, non-working pavement cracks. Filler can be installed in routed or unrouted cracks or in surface overbands.

Routed Reservoir – Routed reservoirs are recommended for longest life. Guidelines for determining reservoir use are:

1. Crack density should not exceed approximately 20% (linear feet of cracks per square feet of pavement area).
2. Pavement should be sound enough to resist significant spalling during cutting. (Final reservoir width should not exceed double the cutter width, or 1 ½" (38 mm) maximum)

Reservoir Dimensions – Determined as follows:

1. The cut should remove at least 1/8" (3mm) from each side of the crack and cut back to sound pavement.
2. Minimum width is ½" (12 mm), maximum is 1 ½" (38 mm).
3. Recommended cut depth is ¾" (19 mm).
4. Reservoirs are then cleaned with compressed air.

Cleaned Unrouted Cracks – Cracks may be cleaned and filled without reservoirs, but longer life is achieved with reservoirs. Cleaning consists of using high-pressure dry, clean compressed air, brushing, or vacuum techniques to remove debris.

Surface Overbands – Product can be applied in overbands after crack cleaning with compressed air. Overbands should not exceed 1/16" (1.5 mm) high above the pavement surface and not extend greater than 2" (50 mm) beyond each crack edge.

Filler Installation and Finishing – Same as sealant installation and finishing.

PORTLAND CEMENT CONCRETE PAVEMENT JOINT SEALING AND RESEALING: Joint sealing and resealing consist of installing extensible sealants into sawn and cleaned joint reservoirs in PCC pavements.

Reservoir Sawing – New concrete should be cured for at least 7 days prior to sawing the joint reservoir. Joint spacing should be at the design dimension, generally from approximately 12 to 20 ft. (3.7 to 6.2m). Joints shall be at least ¼" (6mm) wide and should not exceed 1½" (38mm). For new pavements designed with narrow joints using the initial narrow saw cut as the reservoir, spaced at 15 ft (5m) maximum, and when using low modulus type sealants, joint width may be as narrow as 1/8 inch (3mm). Contact Crafoo for more details. Reservoir depth should allow a sealant depth to width ratio of 1:1 to 2:1, sufficient depth for backer rod, and the specified surface recess. Reservoirs shall be cut no deeper than required. When resealing, old sealant can be removed by knives, plows or sawing. Sawing shall slightly widen the joint by 1/8 to ¼ inch (3-6mm) to remove all traces of old sealant and produce clean, intact vertical surfaces. Maximum joint width is 1 ½ inch (38mm).

Reservoir Cleaning – After sawing, joints shall be flushed with water to remove sawing slurry and allowed to dry. Just prior to installing sealant, both joint surfaces shall be cleaned using sandblasting, brushing or other means to remove any remaining of sawing residue. Final cleaning is then done with high-pressure (minimum 90 psi, 62N/cm²) clean, dry, oil free compressed air the same day that sealant is installed. Moisture and oil traps are required on the compressor. Joints must be inspected to assure cleanliness by rubbing a finger along each face to spot dust or other contaminants. If found, recleaning should occur until joints are completely clean and dry. The objective of sawing and cleaning is to provide vertical, intact, clean concrete bonding surfaces free from all contaminants and are dry.

Backer Rod – After cleaning, heat resistant backer rod (ASTM D5249, Type 1) approx. 25% larger than the joint width shall be installed to the required depth without damage or punctures. Punctures or damage to backer rod may cause sealant bubbling.

Sealant Installation – Concrete should be cured at least 7 days prior to installing sealant. Sealant heated to required temperature is installed per project specifications. Typical installations include a recess up to ¼ inch (6mm), flush, or with a surface overband (maximum 1/16" (1.5mm) above the surface, and 2" (50 mm) maximum beyond each joint edge).

INSTALLATION PRECAUTIONS: In certain situations, additional consideration needs to be given to product selection and application geometries.

Parking lots and other areas subjected to slow moving traffic and pedestrians: Product used must be stiff enough at hot summer temperatures to resist pick up and should not be applied on top of the pavement surface. Product should have a high temperature grade at least one step above the LTPPBIND grade for the climate. For even better pick-up resistance, increase by two grades.

Pavement to receive an Overlay, Surface Treatment, or Seal Coat:

Product will be subjected to overlay heat effects and carriers for surface treatments and seal coats. If product is applied on top of the pavement, and an overlay is then placed, bumps may occur during compaction. Refer to "Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed" (www.crafoo.com) for more information. Solvents or other carriers in surface treatments may soften product. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the product and treatment.

High Severity Cracked Areas: Highly cracked areas (fatigue cracks in wheel paths) should not be treated by covering cracks because pavement friction may be affected. These cracks can be filled if followed by a surface treatment or overlay to restore friction.

Fuel or Oil Spill Areas: These products should not be used in fuel or oil spill areas due to softening of the sealant that may occur. Sealant will not adhere to asphalt or concrete pavements surfaces that are contaminated with oil spills.

Crack Sealing or Filling in Pavements with Surface Treatments: When crack sealing or filling pavements with chip seals, slurry seals, and open graded friction courses, routing should be deep enough to extend through the surface treatment layer into the underlying asphalt concrete. This anchors product into solid pavement for better bonding.

CLEAN OUT: If melters used require clean out, follow manufacturer's instructions. If solvent is used, insure it does not contaminate product because dilution and flash problems may occur.

STORAGE: Pallets of product are protected with a weather resistant covering. During storage, this covering must be intact to prevent boxes from getting wet. If wet, boxes may lose strength and crush. Rips in the pallet covering should be repaired to maintain packaging integrity. Pallets should be stored on a dry, level surface with good drainage. Pallets should not be stacked because crushing of bottom boxes may occur. Product properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since these products are heated to elevated temperatures, it is essential that operations be conducted safely. All personnel need to be aware of hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use and safety information on the box and the product SDS. User should check D.O.T. requirements for transportation of product at elevated temperatures above 212°F (100°C).

HAZARDS ASSOCIATED WITH HOT-APPLIED

MATERIALS: Skin contact with hot materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Precautions are to be taken to prevent contact with hot material and to avoid inhalation of fumes for everyone in the vicinity. Safety precautions should include:

1. Protective clothing to prevent skin contact with hot material.
2. Care when adding product to melters to reduce splashing.
3. Careful operation of wands or pour pots that apply product.
4. Traffic and pedestrian control measures which meet or exceed Manual on Uniform Traffic Control Devices (MUTCD) requirements to prevent access to work areas while product is in a molten state.
5. Avoidance of material fumes.
6. Proper application configurations with a minimum amount of material excess.
7. Appropriate cleanup of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or Crafoo, Inc. This information includes:

1. Product Data Sheets
2. Safety Data Sheet,
3. Safety Manual
4. Sealing Cracks and Joints in Parking and Pedestrian Areas
5. "Bump Formation & Prevention In Asphalt Concrete Overlays Which Have Been Crack Sealed" - visit crafoo.com/references/ for more information.

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READ BEFORE USING THIS PRODUCT

GENERAL

Crafco Fiber Asphalt Sealant 540 is a blend of high-quality polymer modified asphalt sealant and polyester fibers that complies to Ohio DOT specification "Hot-Applied Crack Seal 423 Type IV" sealant. The sealant offers advantages of both types of modification systems. Polymer modification adds adhesion, low temperature flexibility and high temperature pick-up resistance, while fiber modification improves wearing resistance and application characteristics. Fiber Asphalt Sealant 540 is supplied in solid blocks in polyethylene lined boxes. To use, the sealant is simply removed from the boxes, placed in an appropriate melter applicator unit, heated to application temperature, and then applied to the pavement. Fiber Asphalt Sealant 540 is used for filling cracks in asphalt and concrete pavements in moderate to cold climates. VOC = 0 g/l.

SPECIFICATION CONFORMANCE

Crafco Fiber Asphalt Sealant 540 is a blend of high-quality polymer modified asphalt sealant and a minimum of 2% by weight of polyester fibers:

<u>Modified Asphalt Sealant Binder</u>	<u>Test Method</u>	<u>Properties</u>
Cone Penetration @ 77 °F (25 °C)	ASTM D5329	50-90 units
Ductility @ 77 °F (25 °C)	ASTM D113	40 cm minimum
Bond @ 0 °F (-18 °C), 100% ext., 12.7 mm sample	ASTM D5329	Pass 5 cycles
Flow @ 140 °F (60 °C)	ASTM D5329	1.0 cm maximum
Resilience @ 77 °F (25 °C)	ASTM D5329	25-60%
Asphalt Compatibility	ASTM D5329	Pass
Recommended Application Temperature	ASTM D5167	380 °F (193 °C)*
Maximum Heating Temperature	ASTM D6690	400 °F (204 °C)*

*Temperature of product measured at pavement surface. Use highest Recommended Application Temperature in cool weather.

*Prolonged heating at or above Recommended Application Temperature may severely damage product.

<u>Fiber</u>	<u>Properties</u>
Type	Polyester
Denier	3 to 6
Length	¼ +/- 0.02 inch (6.35 +/- 0.51 cm)
Specific Gravity	1.32 to 1.40
Melt Temperature	475 °F (246 °C) min
Tensile Strength	70,000 PSI min
Crimps	None
Ignition Temperature	1000°F min

Specification limits for the blended Crafco Fiber Asphalt Sealant 540 when heated to safe heating temperature in accordance with ASTM D5167 are:

<u>Test</u>	<u>Blended Asphalt Sealant 540 Specification</u>
Minimum Application Temperature	380 °F (193 °C)
Maximum Heating Temperature	400 °F (204 °C)
Workability	Capable of being melted and applied through a pressure feed, indirect heated, agitated Melter.
Softening Point (ASTM D36)	190 °F (88 °C) min
Cone Penetration, 77 °F (25 °C) (ASTM D5329)	25-45 units
Flexibility, 1" (25 mm) -20 °F (-29 °C)	
90° bend, 10 sec	Pass
Viscosity, 400 °F (204 °C) (ASTM D4402)	3000 cp min.

INSTALLATION

The unit weight of Crafco Fiber Asphalt Sealant 540 is 9.5 lbs per gallon (1.14 kg/L) at 60 °F (15.5 °C). Prior to use, the user must read and follow Installation Instructions for Poly-Fiber, Fiber Asphalt, and High Slope Products to verify proper product selection, heating methods, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are provided with each pallet of product.

PACKAGING

Product is supplied in either cardboard boxes, or in meltable boxless packaging. Both package types are labeled in accordance with OSHA, GHS, and specification requirements; are sold by net weight; are interlock stacked on 48 x 40 in. (122 x 102 cm) 4-way pallets; can be stored outside; and are covered with a weather resistant pallet cover and 2 layers of UV protected stretch wrap.

- **BOX** packaging consists of cardboard boxes containing 30 lbs. (13.6 kg) of product with 75 boxes per pallet, weighing approximately 2250 lbs. (1020 kg). Boxes contain a quick melting release film for easy removal and are taped closed, without any staples.
- **Meltable** packaging consists of approximately 30 lbs. (13.6 kg) completely meltable packages that are interlock stacked on pallets. To use, the pallet wrap is removed, and individual blocks are placed in the Melter. There are no individual cardboard boxes to open, empty, handle, or dispose of. Meltable packaging quickly melts into the product without affecting specification conformance. Meltable packaged sealant products are sold by the pallet only and individual packages are not indented for sale. For more details on meltable packaging go to <https://crafco.com/materials-documentation/>

WARRANTY

CRAFCO, Inc. warrants that CRAFCO products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, Crafcoc shall not be responsible for improperly applied or misused products. Remedies against Crafcoc, Inc., as agreed to by Crafcoc, are limited to replacing nonconforming product or refund (full or partial) of purchase price from Crafcoc, Inc. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by Crafcoc, Inc. whichever is earlier. There shall be no other warranties expressed or implied. **For optimum performance, follow Crafcoc recommendations for product installation**

CRAFCO MASTIC ONE I INSTALLATION INSTRUCTIONS

installations when required. The finished Mastic One installation should be applied smooth and level with the pavement surface.

When applied in the wheel path, and other areas where improved skid resistance is desired, the top layer is covered with CrafcO Approved Surfacing Aggregate or a surfacing aggregate specified in the project plan and approved by CrafcO. Prior to applying the surfacing aggregate, quickly expose the surface to a flame to remove any surface bubbles and to heat the surface to adhere to the surfacing aggregate. Apply dry surfacing aggregate when the surface temperature is 300°F (149°C) to 325°F (163°C) as measured with a non-contact infrared thermometer. When practical, the surfacing aggregate should be applied around the perimeter first and then applied to the center after the temperature falls in range.

When surfacing aggregate must be applied at one time, the center surface of the Mastic One should be allowed to cool to a minimum of 300°F (149°C) before application. The perimeter surface temperature will have cooled below the aggregate application temperature range and must be gently heated back to the recommended patch surface temperature range using a torch, before application of the surfacing aggregate.

- Surfacing aggregate shall be applied to completely cover the patch surface. The usage rate for the surfacing aggregate is approximately 2 pounds per square foot.
 - After application, lightly float the pre-heated CrafcO Ironing Wand (P/N 322436) over the surfacing aggregate to imbed approximately 50% of aggregate. **Do not over press** and completely encapsulate the surfacing aggregate. The tops of the aggregate must be visible.
 - Once Mastic One has cooled to the surrounding pavement surface temperature, final cleaning with a sweeper or vacuum is performed to remove any surplus aggregate prior to opening to traffic. Excess surfacing aggregate can be reused if kept clean, not contaminated and dry.
5. When installing over a distressed pavement surface, Mastic One should be applied at least 6 in (15 cm) beyond the distressed area onto sound pavement surfaces.
 6. Mastic One cools quickly after installation and is ready for traffic when it has solidified sufficiently to support loads. Apply CrafcO DeTack to reduce surface tack and allow quicker opening of the area to traffic.

USES AND INSTALLATION CONFIGURATIONS: The general use of Mastic One is to repair pavement deficiencies which are larger than those that can be appropriately addressed with pavement sealants, but smaller than those where conventional remove and replace patching procedures are used. Typical uses include (but are not limited to):

- 1) Sealing and filling pavement cracks or joints over 1.5 in (3.8cm) wide,
- 2) Filling potholes,
- 3) Leveling depressed thermal cracks,
- 4) Sealing and repairing deteriorated longitudinal joints,
- 5) Skin patching,
- 6) Pretreatment of cracked areas prior to surface treatments,
- 7) Repairs prior to surface treatments
- 8) Leveling manhole covers, bridge deck approaches, or other settlement at structures,

9) Capping settled utility cuts,

10) Filling spalls, popouts, and corner breaks

Mastic One binder is self-adhesive and develops a strong bond to the pavement. Shrinkage of approximately 5% occurs as Mastic One cools from application temperature to ambient. No compaction is required. After application, time must be given for the product to cool before opening the area to traffic. Cooling time will vary depending on the size of the application and ambient temperature. Generally, allow approximately 30 to 60 minutes of cooling for each 1 in (2.5cm) of material depth.

For installations of Mastic One deeper than 2.5 in (6.3cm), product shall be installed in layers not exceeding 2.5 in thick (6.3cm) with cooling to 200°F (93°C) maximum before applying the next layer. The final layer to the pavement surface level should be ½ to 1 in (1.2 to 2.5cm) thick. This layering process reduces material shrinkage during product cooling. Installations over 2 in (5cm) deep shall be bulked by adding up to 25% by volume of CrafcO Structural Aggregate (Part No. 33033) or other aggregates approved by CrafcO to the patch in layers for improved stability and quicker cooling. Roofing felt or other similar strips can be used along the work area boundaries to create neat, well defined edges. The strips should be removed immediately after application before material cools.

APPLICATION LIFE: Application life at application temperatures is approximately 12 to 15 hours. Application life may be extended by adding fresh material as quantity in the applicator decreases. Mastic One must be agitated while being applied. The material may be reheated to application temperature once, after the initial heat up. Additional reheating of the material may result in degradation of properties. At the end of the installation day, it is recommended that the melter be as empty as possible. Product volume of no more than 25% of melter capacity should be left in the melter for reheating. When reheating, a volume of Mastic One equal to or greater than the amount being reheated should be added to the melter for the next installation. When the application life has been exceeded, Mastic One will begin to thicken, become "stringy" and may then gel. If this should occur, the material should immediately be removed from the melter and discarded.

PRECAUTIONS: Mastic One will soften, become sticky, and track if exposed to fuel or oil spillage, therefore, it should not be used in areas subject to fuel or oils.

STORAGE: Pallets of packaged product are protected with a weather resistant covering. During storage, the protective wrap must be kept on the pallets to maintain pallet stability. If rips in the pallet covering occur during handling, they should be repaired to help maintain packaging integrity. Pallets should be stored on a level surface which is dry and has good drainage. Pallets should not be stacked because crushing of bottom layers may occur. Mastic One material properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since Mastic One is heated to elevated temperatures, it is essential that operations be conducted in manners which assure safety of personnel. All associated with use of the material need to be aware of the hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use, safety information and the product SDS. This sheet, which is supplied with each shipment, describes the characteristics of the product as well as any potential health hazards and precautions for safe handling and use. User should check D.O.T. requirements for transportation of product at elevated temperatures (above 212°F (100°C)).

HAZARDS ASSOCIATED WITH HOT APPLIED MATERIALS: Skin contact with hot applied materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Appropriate precautions need to be taken to prevent contact with the hot material and to avoid inhalation of fumes for everyone in the vicinity of the work area operation. Safety precautions should include: 1. Protective clothing to prevent skin contact with hot material. 2. Care when adding product to melters to reduce splashing. 3. Careful operation and control of tools which are used to apply product. 4. Traffic and pedestrian control measures which meet or exceed MUTCD requirements to prevent access to work areas while product is still in a molten state. 5. Avoidance of material fumes. 6. Proper application configurations with a minimum amount of excesses of material. 7. Appropriate cleanup of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or Crafc0, Inc. This information includes 1) Product Data Sheets, 2) Safety Data Sheets, 3) Equipment Safety Manual

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READ BEFORE USING THIS PRODUCT

GENERAL Mastic One is a hot-applied, pourable, aggregate filled, black color, polymer modified asphalt pavement repair mastic. Mastic One complies with ASTM D8260 Type I. Mastic One is used for sealing, filling and repairing many distresses in both asphalt concrete and portland cement concrete pavements and bridge deck surfaces that are larger than those typically repaired by crack or joint sealing, but smaller than repairs requiring remove and replace patching procedures. Typical uses include sealing, filling and leveling of wide transverse or longitudinal cracks and joints, filling potholes and utility cuts, localized skin patch repairs, repairs prior to surface treatments, and leveling bridge approaches or faulted areas. When properly applied, Mastic One forms a well-bonded, flexible, durable, traffic resistant repair. To use, Mastic One is placed into an appropriate melter (Crafco Patcher units), mixed and heated until application temperature is reached, poured into the prepared repair area and then leveled. Mastic One is formulated to provide neat feathered edge installation. Mastic One is then ready for traffic when it has cooled and solidified. VOC = 0 g/l.

PROPERTIES Properties of the binder, aggregate and blended and heated Mastic One according to ASTM D8260 are as follows:

Property	Requirement
POLYMER MODIFIED BINDER	
Cone Penetration, 77°F (25°C) (ASTM D5329)	60 max
Cone Penetration, 122°F (50°C) (ASTM D5329)	120 max
Softening Point, (ASTM D36)	200°F (93°C) min
Flexibility, 1" (25.4 mm), 180°, 10 sec (ASTM D3111 modified)	Pass at 32°F (0°C)
AGGREGATE	
Abrasion Resistance (ASTM C131)	35% max
BLENDED PRODUCT	
Flexibility, 32°F (0°C) (ASTM D5329)	Pass
Adhesion, 77°F (25°C) (ASTM D5329)	25 PSI (172 KPA) min
Specific Gravity	1.7 -2.0
Minimum Application Temperature	375°F (190°C) *
Maximum Application Temperature	400°F (204°C)

Test	ASTM D8260 Type I Specification Limits
Mastic Resilience (ASTM 8260)	50% minimum
Effects of Rapid Deformation (ASTM D2794) (-7°C)	3 passing specimens no chipping, cracking or separation 8 N-m
Crack Bridging (ASTM C1305 modified) (-7°C)	Pass 3 cycles
Mastic Stability (ASTM D8260) (70°C)	40.0 mm maximum

*Refer to installation instructions if working on sloped pavements or repairing larger defects

INSTALLATION The density of Mastic One is 116 pcf (+/- 3%) and the weight per gallon is 15.5 lbs./gal (1.86 kg/l) at 60°F (15.5°C). Prior to use, the user must read and follow Installation Instructions for Mastic One to verify proper product selection, heating methods, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are available at www.crafco.com and provided with each pallet of Mastic One.

PACKAGING Mastic One is supplied in either cardboard boxes, or in meltable, boxless PLEXI-melt packaging. Each package contains premeasured polymer modified binder and aggregate. Both package types are labeled in accordance with OSHA, GHS, and specification requirements; are sold by net weight; are interlock stacked on 48 x 40 in. (122 x102 cm) 4-way pallets; can be stored outside; and are covered with a weather resistant pallet cover and 2 layers of UV protected stretch wrap.

- o **BOX** packaging consists of cardboard boxes containing approximately 40 lb. (18.1 kg) of product with 60 boxes per pallet, weighing approximately 2400 lb. (1088 kg). Boxes contain a quick melting release film for easy removal and are taped closed, without any staples.
- o **PLEXI-melt** packaging consists of 30 lb. (13.6 kg) blocks of product with 70 packages per pallet, weighing 2100 lb. (952 kg). To use, the pallet wrap is removed, and individual blocks are placed in the melter. There are no cardboard boxes or other cardboard components to open, empty, handle, or dispose of. PLEXI-melt packaging quickly melts into the product without affecting specification conformance.

WARRANTY CRAFCO, Inc. warrants that CRAFCO products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, Crafco shall not be responsible for improperly applied or misused products. Remedies against Crafco, Inc., as agreed to by Crafco, are limited to replacing nonconforming product or refund (full or partial) of purchase price from Crafco, Inc. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by Crafco, Inc. whichever is earlier. There shall be no other warranties expressed or implied. **For optimum performance, follow Crafco recommendations for product installation.**

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Product shall be supplied in 30 lb. (13.6 kg) completely meltable packages that are interlock stacked on pallets containing 2100 lb. (952 kg) of product. The individual packages and palletized unit shall not contain any cardboard components to open, empty, handle, or dispose of. Packages shall be labeled in accordance with OSHA, GHS and ASTM requirements. The packages and palletized unit shall be water and weather resistant and shall be able to be stored outside.

The individual packages of product shall be encased in a high-strength, low-density, protective covering that quickly melts into the product at normal use temperatures without affecting product installation characteristics or specification conformance.

The protective covering shall not weigh more than 0.50% of the product weight and shall have the following properties:

Thickness (ASTM D1777, 7.15 psi, 0.625 in. dia. presser)	0.004-0.008 in. (0.10-0.20 mm)
Puncture Resistance (ASTM E 154)	75 lb. (334N) minimum
Tensile Strength (ASTM D5035, cut strip, 2 in. /min)	20 lb. /in. (35N/cm) minimum
Density (ASTM D792)	0.50 g/cc maximum

READ BEFORE USING THIS PRODUCT

GENERAL: These products are hot-applied, single component polymer/rubber modified products supplied in solid form used to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. These products are not fuel resistant and should not be used in fuel or oil spill prone areas. To use boxed materials, product is removed from the package, heated in a melter and applied to the pavement. For products in meltable packaging (PlexiMELT or NoBOX) and RoadSaver Gray materials, the entire package is added to the melter. Details on product specifications, climate and usage suitability, and product selection are contained in Product Data Sheets.

MELTING AND APPLICATION: These products must be melted in jacketed double boiler melters with effective agitation that meet requirements of Appendix X1.1 of ASTM D6690. CrafcO Supershot, EZ Series 2, and EZ Pour melters are recommended. Do not use direct fired or air heated machines unless stated on the product data sheet. Heat transfer oil should not exceed 525°F (274°C). The melter must be capable of safely heating product to 400°F (204°C). **CAUTION:** Stop agitation when adding product to prevent splashing. Product is heated to between the minimum application temperature and the maximum heating temperature which are shown on product containers and Product Data Sheets. These products are most effectively applied with pressure feed wand systems. RoadSaver, PolyFlex and Parking Lot products can also be applied using gravity feed pour pots (Part No.40200 and 40201).

APPLICATION LIFE: Application life, when heated to application temperature, is approximately 12 to 15 hours and may be extended by adding fresh product. Product shall be agitated during installation. Product may be reheated once to application temperature, after initial heat up. When application life has been exceeded, RoadSaver and Parking Lot products will thicken, become "stringy" and may then gel. If this occurs, product should immediately be removed from the melter and discarded. Asphalt Rubber and PolyFlex products will soften when overheated or heated for too long.

PAVEMENT TEMPERATURES: Apply product when pavement temperature exceeds 40°F (4°C). Lower temperatures may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance (Part No. 45650) that puts no direct flame on the pavement. If installing at lower pavement temperature than 40°F (4°C), extreme care should be used to ensure that cracks or joints are dry and free from contaminants. Product temperature should be maintained at the maximum heating temperature. If installing at night, assure dew is not forming on pavement. Applied product should be checked by qualified personnel to assure adequate adhesion.

TRAFFIC CONTROLS: Place traffic controls in accordance with Part 6, Temporary Controls, of the FHWA Manual on Uniform Traffic Control devices (MUTCD) to protect the work site for the duration of the repairs.

CRACK / JOINT CLEANING: For appropriate adhesion, cracks or joints must be thoroughly clean and dry immediately prior to product installation. After widening or debris removal, and just prior to product installation, final cleaning shall use high pressure 90 psi (620kpa) minimum, dry, oil free compressed air to remove any remaining dust.

Both sides of the crack or joint shall be cleaned. Surfaces should be inspected to assure adequate cleanliness and dryness.

ASPHALT PAVEMENT CRACK SEALING: Crack sealing consists of installing extensible sealants into routed reservoirs in working cracks in pavements in good condition.

Reservoir Cutting: Based on the 98% LTPPBIND temperature range (difference from high to low), cracks are to be routed as follows:

Temperature	Grade Range	Reservoir Width	Reservoir Depth
80°C or less		½" (12 mm)	¾" (19 mm)
86°C		¾" (19 mm)	¾" (19 mm)
92°C		1 1/8" (28 mm)	½" (12 mm)
98° or greater		1 ½" (38 mm)	½" (12 mm)

Reservoir width should not exceed 1 ½" (38 mm). Cutting should remove at least 1/8" (3 mm) from each side and produce vertical, intact surfaces with no loosely bonded aggregate. The pavement should be sound enough to resist significant spalling during cutting. Final reservoir width should not exceed twice the cutter width or 1 ½" (38 mm) maximum.

Installation and Finishing: After cleaning, sealant at the required temperature is installed in the reservoir. Sealant can be installed with up to a 3/8" (10 mm) underfill, flush fill, or with an overband cap that does not exceed 1/16" (1.5mm) above the pavement surface, and not greater than a 2" (50 mm) width beyond crack edges, depending on project specifications. These configurations are achieved using appropriate wand tips, shoes or squeegees. To reduce surface tack, CrafcO DeTack or other approved material may be applied.

ASPHALT PAVEMENT CRACK FILLING: Crack filling consists of installing flexible, traffic resistant product into prepared, cleaned, non-working pavement cracks. Filler can be installed in routed or unrouted cracks or in surface overbands.

Routed Reservoir – Routed reservoirs are recommended for longest life. Guidelines for determining reservoir use are:

1. Crack density should not exceed approximately 20% (linear feet of cracks per square foot of pavement area).
2. Pavement should be sound enough to resist significant spalling during cutting. (Final reservoir width should not exceed double the cutter width, or 1 ½" (38 mm) maximum)

Reservoir Dimensions – Determined as follows:

1. The cut should remove at least 1/8" (3mm) from each side of the crack and cut back to sound pavement.
2. Minimum width is ½" (12mm), maximum is 1 ½" (38 mm).
3. Recommended cut depth is ¼" (19 mm).
4. Reservoirs are then cleaned with compressed air.

Cleaned Unrouted Cracks – Cracks may be cleaned and filled without reservoirs, but longer life is achieved with reservoirs. Cleaning consists of using high-pressure dry, clean compressed air, brushing, or vacuum techniques to remove debris.

Surface Overbands – Product can be applied in overbands after crack cleaning with compressed air. Overbands should not exceed 1/16" (1.5 mm) high above the pavement surface and not extend greater than 2" (50 mm) beyond each crack edge.

Filler Installation and Finishing – Same as sealant installation and finishing.

PORTLAND CEMENT CONCRETE PAVEMENT JOINT SEALING AND RESEALING: Joint sealing and resealing consist of installing extensible sealants into sawn and cleaned joint reservoirs in PCC pavements.

Reservoir Sawing – New concrete should be cured for at least 7 days prior to sawing the joint reservoir. Joint spacing should be at the design dimension, generally from approximately 12 to 20 ft. (3.7 to 6.2m). Joints shall be at least 1/4" (6mm) wide and should not exceed 1/2" (38mm). For new pavements designed with narrow joints using the initial narrow saw cut as the reservoir, spaced at 15 ft (5m) maximum, and when using low modulus type sealants, joint width may be as narrow as 1/8 inch (3mm). Contact CrafcO for more details. Reservoir depth should allow a sealant depth to width ratio of 1:1 to 2:1, sufficient depth for backer rod, and the specified surface recess. Reservoirs shall be cut no deeper than required. When resealing, old sealant can be removed by knives, plows or sawing. Sawing shall slightly widen the joint by 1/8 to 1/4 inch (3-6mm) to remove all traces of old sealant and produce clean, intact vertical surfaces. Maximum joint width is 1/2 inch (38mm).

Reservoir Cleaning – After sawing, joints shall be flushed with water to remove sawing slurry and allowed to dry. Just prior to installing sealant, both joint surfaces shall be cleaned using sandblasting, brushing or other means to remove any remaining of sawing residue. Final cleaning is then done with high-pressure (minimum 90 psi, 62N/cm²) clean, dry, oil free compressed air the same day that sealant is installed. Moisture and oil traps are required on the compressor. Joints must be inspected to assure cleanliness by rubbing a finger along each face to spot dust or other contaminants. If found, recleaning should occur until joints are completely clean and dry. The objective of sawing and cleaning is to provide vertical, intact, clean concrete bonding surfaces free from all contaminants and are dry.

Backer Rod – After cleaning, heat resistant backer rod (ASTM D5249, Type 1) approx. 25% larger than the joint width shall be installed to the required depth without damage or punctures. Punctures or damage to backer rod may cause sealant bubbling.

Sealant Installation – Concrete should be cured at least 7 days prior to installing sealant. Sealant heated to required temperature is installed per project specifications. Typical installations include a recess up to 1/4 inch (6mm), flush, or with a surface overband (maximum 1/16" (1.5mm) above the surface, and 2" (50 mm) maximum beyond each joint edge).

INSTALLATION PRECAUTIONS: In certain situations, additional consideration needs to be given to product selection and application geometries.

Parking lots and other areas subjected to slow moving traffic and pedestrians: Product used must be stiff enough at hot summer temperatures to resist pick up and should not be applied on top of the pavement surface. Product should have a high temperature grade at least one step above the LTPPBIND grade for the climate. For even better pick-up resistance, increase by two grades.

Pavement to receive an Overlay, Surface Treatment, or Seal Coat: Product will be subjected to overlay heat effects and carriers for surface treatments and seal coats. If product is applied on top of the pavement, and an overlay is then placed, bumps may occur during compaction. Refer to "Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed" (www.crafco.com) for more information. Solvents or other carriers in surface treatments may soften product. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the product and treatment.

High Severity Cracked Areas: Highly cracked areas (fatigue cracks in wheel paths) should not be treated by covering cracks because pavement friction may be affected. These cracks can be filled if followed by a surface treatment or overlay to restore friction.

Fuel or Oil Spill Areas: These products should not be used in fuel or oil spill areas due to softening of the sealant that may occur. Sealant will not adhere to asphalt or concrete pavements surfaces that are contaminated with oil spills.

Crack Sealing or Filling in Pavements with Surface Treatments: When crack sealing or filling pavements with chip seals, slurry seals, and open graded friction courses, routing should be deep enough to extend through the surface treatment layer into the underlying asphalt concrete. This anchors product into solid pavement for better bonding.

CLEAN OUT: If melters used require clean out, follow manufacturer's instructions. If solvent is used, insure it does not contaminate product because dilution and flash problems may occur.

STORAGE: Pallets of product are protected with a weather resistant covering. During storage, this covering must be intact to prevent boxes from getting wet. If wet, boxes may lose strength and crush. Rips in the pallet covering should be repaired to maintain packaging integrity. Pallets should be stored on a dry, level surface with good drainage. Pallets should not be stacked because crushing of bottom boxes may occur. Product properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since these products are heated to elevated temperatures, it is essential that operations be conducted safely. All personnel need to be aware of hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use and safety information on the box and the product SDS. User should check D.O.T. requirements for transportation of product at elevated temperatures above 212°F (100°C).

HAZARDS ASSOCIATED WITH HOT-APPLIED

MATERIALS: Skin contact with hot materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Precautions are to be taken to prevent contact with hot material and to avoid inhalation of fumes for everyone in the vicinity. Safety precautions should include:

1. Protective clothing to prevent skin contact with hot material.
2. Care when adding product to melters to reduce splashing.
3. Careful operation of wands or pour pots that apply product.
4. Traffic and pedestrian control measures which meet or exceed Manual on Uniform Traffic Control Devices (MUTCD) requirements to prevent access to work areas while product is in a molten state.
5. Avoidance of material fumes.
6. Proper application configurations with a minimum amount of material excess.
7. Appropriate cleanup of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or CrafcO, Inc. This information includes:

1. Product Data Sheets
2. Safety Data Sheet,
3. Safety Manual
4. Sealing Cracks and Joints in Parking and Pedestrian Areas
5. "Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed"- visit crafco.com/references/ for more information.

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READ BEFORE USING THIS PRODUCT

GENERAL

Crafco PolyFiber 542 is a blend of high-quality polymer modified asphalt sealant complying with ASTM D6690 Type II and polyester fibers. The sealant offers advantages of both types of modification systems. Polymer modification adds adhesion, low temperature flexibility and high temperature pick-up resistance, while fiber modification improves wearing resistance and application characteristics. PolyFiber 542 is supplied in solid blocks in polyethylene lined boxes. To use, the sealant is simply removed from the boxes, placed in an appropriate Melter applicator unit, heated to application temperature, and then applied to the pavement. PolyFiber 542 is used for filling cracks in asphalt and concrete pavements in moderate to cold climates. VOC = 0 g/l.

SPECIFICATION CONFORMANCE

Crafco PolyFiber 542 is a blend of high-quality polymer modified asphalt sealant and a minimum of 1% by weight of polyester fibers:

Modified Asphalt Sealant Binder

Cone Penetration @ 77 °F (25 °C)
 Softening Point
 Resilience @ 77 °F (25 °C)
 Bond, -20 °F (-29 °C), 50% ext.
 Asphalt Compatibility
 Minimum Application Temperature
 Maximum Heating Temperature

Test Method

ASTM D5329
 ASTM D36
 ASTM D5329
 ASTM D5329
 ASTM D5329

Properties

90 maximum
 176 °F (80 °C) minimum
 60% minimum
 Pass 3 cycles
 Pass
 380 °F (193 °C)*
 400 °F (204 °C)*

*Temperature of product measured at pavement surface. Use the highest Minimum Application Temperature in cool weather.

*Prolonged heating at or above Maximum Heating Temperature may severely damage the product.

Fiber

Type
 Denier
 Length
 Specific Gravity
 Melt Temperature
 Tensile Strength
 Crimps
 Ignition Temperature

Properties

Polyester
 3 to 6
 ¼ +/- 0.02 Inch (6.35 +/- 0.51 cm)
 1.32 to 1.40
 475 °F (246 °C) min
 70,000 PSI min
 None
 1000 °F min

Specification limits for the blended Crafco PolyFiber 542 when heated to safe heating temperature in accordance with ASTM D167 are:

Test

Workability
 Softening Point (ASTM D36)
 Cone Penetration, 77 °F (25 °C) (ASTM D5329)
 Flexibility, 1" (25 mm) -20 °F (-29 °C) 90° bend, 10 sec
 Minimum Application Temperature
 Maximum Heating Temperature

Blended PolyFiber 542 Specification

Capable of being melted and applied through a pressure feed, indirectly heated, agitated Melter.
 200 °F (93 °C) minimum
 25-45 units
 Pass
 380 °F (193 °C)
 400 °F (204 °C)

INSTALLATION

The unit weight of Crafco PolyFiber 542 is 10.5 lbs. per gallon (1.26 kg/L) at 60 °F (15.5 °C). Prior to use, the user must read and follow Installation Instructions for Poly-Fiber, and High Slope Products to verify proper product selection, heating methods, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are provided with each pallet of product.

PACKAGING

Product is supplied in cardboard boxes. Packages are labeled in accordance with OSHA, GHS, and specification requirements; are sold by net weight; are interlock stacked on 48 x 40 in. (122 x 102 cm) 4-way pallets; can be stored outside; and are covered with a weather resistant pallet cover and 2 layers of UV protected stretch wrap.

- **BOX** packaging consists of cardboard boxes containing 30 lbs. (13.6 kg) of product with 75 boxes per pallet, weighing approximately 2250 lbs. (1020 kg). Boxes contain a quick melting release film for easy removal and are taped closed, without any staples.

WARRANTY

CRAFCO, Inc. warrants that CRAFCO products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, Crafco shall not be responsible for improperly applied or misused products. Remedies against Crafco, Inc., as agreed to by Crafco, are limited to replacing nonconforming product or refund (full or partial) of purchase price from Crafco, Inc. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by Crafco, Inc. whichever is earlier. There shall be no other warranties expressed or implied. **For optimum performance, follow Crafco recommendations for product installation**

READ BEFORE USING THIS PRODUCT

GENERAL: These products are hot-applied, single component polymer/rubber modified products supplied in solid form used to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. These products are not fuel resistant and should not be used in fuel or oil spill prone areas. To use boxed materials, product is removed from the package, heated in a melter and applied to the pavement. For products in meltable packaging (PlexiMELT or NoBOX) and RoadSaver Gray materials, the entire package is added to the melter. Details on product specifications, climate and usage suitability, and product selection are contained in Product Data Sheets.

MELTING AND APPLICATION: These products must be melted in jacketed double boiler melters with effective agitation that meet requirements of Appendix X1.1 of ASTM D6690. Crafco Supershot, EZ Series 2, and EZ Pour melters are recommended. Do not use direct fired or air heated machines unless stated on the product data sheet. Heat transfer oil should not exceed 525°F (274°C). The melter must be capable of safely heating product to 400°F (204°C). **CAUTION:** Stop agitation when adding product to prevent splashing. Product is heated to between the minimum application temperature and the maximum heating temperature which are shown on product containers and Product Data Sheets. These products are most effectively applied with pressure feed wand systems. RoadSaver, PolyFlex and Parking Lot products can also be applied using gravity feed pour pots (Part No.40200 and 40201).

APPLICATION LIFE: Application life, when heated to application temperature, is approximately 12 to 15 hours and may be extended by adding fresh product. Product shall be agitated during installation. Product may be reheated once to application temperature, after initial heat up. When application life has been exceeded, RoadSaver and Parking Lot products will thicken, become "stringy" and may then gel. If this occurs, product should immediately be removed from the melter and discarded. Asphalt Rubber and PolyFlex products will soften when overheated or heated for too long.

PAVEMENT TEMPERATURES: Apply product when pavement temperature exceeds 40°F (4°C). Lower temperatures may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance (Part No. 45650) that puts no direct flame on the pavement. If installing at lower pavement temperature than 40°F (4°C), extreme care should be used to ensure that cracks or joints are dry and free from contaminants. Product temperature should be maintained at the maximum heating temperature. If installing at night, assure dew is not forming on pavement. Applied product should be checked by qualified personnel to assure adequate adhesion.

TRAFFIC CONTROLS: Place traffic controls in accordance with Part 6, Temporary Controls, of the FHWA Manual on Uniform Traffic Control devices (MUTCD) to protect the work site for the duration of the repairs.

CRACK / JOINT CLEANING: For appropriate adhesion, cracks or joints must be thoroughly clean and dry immediately prior to product installation. After widening or debris removal, and just prior to product installation, final cleaning shall use high pressure 90 psi (620kpa) minimum, dry, oil free compressed air to remove any remaining dust.

Both sides of the crack or joint shall be cleaned. Surfaces should be inspected to assure adequate cleanliness and dryness.

ASPHALT PAVEMENT CRACK SEALING: Crack sealing consists of installing extensible sealants into routed reservoirs in working cracks in pavements in good condition.

Reservoir Cutting: Based on the 98% LTPPBIND temperature range (difference from high to low), cracks are to be routed as follows:

Temperature	Reservoir Width	Reservoir Depth
Grade Range		
80°C or less	¼" (12 mm)	¼" (19 mm)
86°C	¼" (19 mm)	¼" (19 mm)
92°C	1 1/8" (28 mm)	½" (12 mm)
98° or greater	1 ½" (38 mm)	½" (12 mm)

Reservoir width should not exceed 1 ½" (38 mm). Cutting should remove at least 1/8" (3 mm) from each side and produce vertical, intact surfaces with no loosely bonded aggregate. The pavement should be sound enough to resist significant spalling during cutting. Final reservoir width should not exceed twice the cutter width or 1 ½" (38 mm) maximum.

Installation and Finishing: After cleaning, sealant at the required temperature is installed in the reservoir. Sealant can be installed with up to a 3/8" (10 mm) underfill, flush fill, or with an overband cap that does not exceed 1/16" (1.5mm) above the pavement surface, and not greater than a 2" (50 mm) width beyond crack edges, depending on project specifications. These configurations are achieved using appropriate wand tips, shoes or squeegees. To reduce surface tack, Crafco DeTack or other approved material may be applied.

ASPHALT PAVEMENT CRACK FILLING: Crack filling consists of installing flexible, traffic resistant product into prepared, cleaned, non-working pavement cracks. Filler can be installed in routed or unrouted cracks or in surface overbands.

Routed Reservoir – Routed reservoirs are recommended for longest life. Guidelines for determining reservoir use are:

1. Crack density should not exceed approximately 20% (linear feet of cracks per square feet of pavement area).
2. Pavement should be sound enough to resist significant spalling during cutting, (Final reservoir width should not exceed double the cutter width, or 1 ½"(38 mm) maximum

Reservoir Dimensions – Determined as follows:

1. The cut should remove at least 1/8" (3mm) from each side of the crack and cut back to sound pavement.
2. Minimum width is ½"(12 mm), maximum is 1 ½"(38 mm).
3. Recommended cut depth is ¼" (19 mm).
4. Reservoirs are then cleaned with compressed air.

Cleaned Unrouted Cracks – Cracks may be cleaned and filled without reservoirs, but longer life is achieved with reservoirs. Cleaning consists of using high-pressure dry, clean compressed air, brushing, or vacuum techniques to remove debris.

Surface Overbands – Product can be applied in overbands after crack cleaning with compressed air. Overbands should not exceed 1/16" (1.5 mm) high above the pavement surface and not extend greater than 2" (50 mm) beyond each crack edge.

Filler Installation and Finishing – Same as sealant installation and finishing.

PORTLAND CEMENT CONCRETE PAVEMENT JOINT SEALING AND RESEALING: Joint sealing and resealing consist of installing extensible sealants into sawn and cleaned joint reservoirs in PCC pavements.

Reservoir Sawing – New concrete should be cured for at least 7 days prior to sawing the joint reservoir. Joint spacing should be at the design dimension, generally from approximately 12 to 20 ft. (3.7 to 6.2m). Joints shall be at least ¼" (6mm) wide and should not exceed 1½" (38mm). For new pavements designed with narrow joints using the initial narrow saw cut as the reservoir, spaced at 15 ft (5m) maximum, and when using low modulus type sealants, joint width may be as narrow as 1/8 inch (3mm). Contact CrafcO for more details. Reservoir depth should allow a sealant depth to width ratio of 1:1 to 2:1, sufficient depth for backer rod, and the specified surface recess. Reservoirs shall be cut no deeper than required. When resealing, old sealant can be removed by knives, plows or sawing. Sawing shall slightly widen the joint by 1/8 to ¼ inch (3-6mm) to remove all traces of old sealant and produce clean, intact vertical surfaces. Maximum joint width is 1 ½ inch (38mm).

Reservoir Cleaning – After sawing, joints shall be flushed with water to remove sawing slurry and allowed to dry. Just prior to installing sealant, both joint surfaces shall be cleaned using sandblasting, brushing or other means to remove any remaining of sawing residue. Final cleaning is then done with high-pressure (minimum 90 psi, 62N/cm²) clean, dry, oil free compressed air the same day that sealant is installed. Moisture and oil traps are required on the compressor. Joints must be inspected to assure cleanliness by rubbing a finger along each face to spot dust or other contaminants. If found, recleaning should occur until joints are completely clean and dry. The objective of sawing and cleaning is to provide vertical, intact, clean concrete bonding surfaces free from all contaminants and are dry.

Backer Rod – After cleaning, heat resistant backer rod (ASTM D5249, Type 1) approx. 25% larger than the joint width shall be installed to the required depth without damage or punctures. Punctures or damage to backer rod may cause sealant bubbling.

Sealant Installation – Concrete should be cured at least 7 days prior to installing sealant. Sealant heated to required temperature is installed per project specifications. Typical installations include a recess up to ¼ inch (6mm), flush, or with a surface overband (maximum 1/16" (1.5mm) above the surface, and 2" (50 mm) maximum beyond each joint edge).

INSTALLATION PRECAUTIONS: In certain situations, additional consideration needs to be given to product selection and application geometries.

Parking lots and other areas subjected to slow moving traffic and pedestrians: Product used must be stiff enough at hot summer temperatures to resist pick up and should not be applied on top of the pavement surface. Product should have a high temperature grade at least one step above the LTPPBIND grade for the climate. For even better pick-up resistance, increase by two grades.

Pavement to receive an Overlay, Surface Treatment, or Seal Coat: Product will be subjected to overlay heat effects and carriers for surface treatments and seal coats. If product is applied on top of the pavement, and an overlay is then placed, bumps may occur during compaction. Refer to "Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed" (www.crafcO.com) for more information. Solvents or other carriers in surface treatments may soften product. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the product and treatment.

High Severity Cracked Areas: Highly cracked areas (fatigue cracks in wheel paths) should not be treated by covering cracks because pavement friction may be affected. These cracks can be filled if followed by a surface treatment or overlay to restore friction.

Fuel or Oil Spill Areas: These products should not be used in fuel or oil spill areas due to softening of the sealant that may occur. Sealant will not adhere to asphalt or concrete pavements surfaces that are contaminated with oil spills.

Crack Sealing or Filling in Pavements with Surface Treatments: When crack sealing or filling pavements with chip seals, slurry seals, and open graded friction courses, routing should be deep enough to extend through the surface treatment layer into the underlying asphalt concrete. This anchors product into solid pavement for better bonding.

CLEAN OUT: If melters used require clean out, follow manufacturer's instructions. If solvent is used, insure it does not contaminate product because dilution and flash problems may occur.

STORAGE: Pallets of product are protected with a weather resistant covering. During storage, this covering must be intact to prevent boxes from getting wet. If wet, boxes may lose strength and crush. Rips in the pallet covering should be repaired to maintain packaging integrity. Pallets should be stored on a dry, level surface with good drainage. Pallets should not be stacked because crushing of bottom boxes may occur. Product properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since these products are heated to elevated temperatures, it is essential that operations be conducted safely. All personnel need to be aware of hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use and safety information on the box and the product SDS. User should check D.O.T. requirements for transportation of product at elevated temperatures above 212°F (100°C).

HAZARDS ASSOCIATED WITH HOT-APPLIED

MATERIALS: Skin contact with hot materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Precautions are to be taken to prevent contact with hot material and to avoid inhalation of fumes for everyone in the vicinity. Safety precautions should include:

1. Protective clothing to prevent skin contact with hot material.
2. Care when adding product to melters to reduce splashing.
3. Careful operation of wands or pour pots that apply product.
4. Traffic and pedestrian control measures which meet or exceed Manual on Uniform Traffic Control Devices (MUTCD) requirements to prevent access to work areas while product is in a molten state.
5. Avoidance of material fumes.
6. Proper application configurations with a minimum amount of material excess.
7. Appropriate cleanup of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or CrafcO, Inc. This information includes:

1. Product Data Sheets
2. Safety Data Sheet,
3. Safety Manual
4. Sealing Cracks and Joints in Parking and Pedestrian Areas
5. "Bump Formation & Prevention In Asphalt Concrete Overlays Which Have Been Crack Sealed" – visit crafcO.com/references/ for more information.

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READ BEFORE USING THIS PRODUCT

GENERAL

Crafco RoadSaver 221 sealant is a hot-applied asphalt-based product used to seal and fill cracks and joints in asphalt or Portland cement concrete pavements in hot to cold climates. RoadSaver 221 is supplied in solid form which when melted and properly applied forms a resilient, adhesive, and flexible compound that resists cracking in the winter and is resistant to flow and pick-up at summer temperatures. RoadSaver 221 is used in highways, streets, and airfield pavements and is applied to pavement cracks and joints using either pressure feed Melter applicators or pour pots. At application temperature RoadSaver 221 is a free flowing, self-leveling product. RoadSaver 221 is a widely used, excellent performing sealant that has been a quality Crafco product for over 30 years. VOC = 0 g/l.

SPECIFICATION CONFORMANCE

RoadSaver 221 meets all requirements of ASTM D6690 (AASHTO M324), Type II, "Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements", (formerly ASTM D3405 and AASHTO M301). It also exceeds requirements of ASTM D6690 (AASHTO M324), Type I, (formerly ASTM D1190, AASHTO M173), and Federal Specification SS-S-164.

<u>Test</u>	<u>ASTM D6690 (AASHTO M324) Type II Spec. Limits</u>
Cone Penetration	90 max.
Softening Point	176 °F (80 °C) min.
Resilience	60% min.
Bond, -20 °F (-29 °C), 50% ext.	Pass 3 cycles
Asphalt Compatibility	Compatible
Minimum Application Temperature	380 °F (193 °C)
Maximum Heating Temperature	400 °F (204 °C)

INSTALLATION

The unit weight of Crafco RoadSaver 221 is 10.5 lbs. per gallon (1.26 kg/L) at 60 °F (15.6 °C). Prior to use, the user must read and follow Installation Instructions for Hot-Applied RoadSaver, PolyFlex, Parking Lot and Asphalt Rubber Products to verify proper product selection, heating methods, pavement preparation procedures, application geometry, usage precautions and safety procedures. These instructions are provided with each pallet of product.

PACKAGING

Product is supplied in either cardboard boxes, or in meltable boxless packaging. Both package types are labeled in accordance with OSHA, GHS, and specification requirements; are sold by net weight; are interlock stacked on 48 x 40 in. (122 x 102 cm) 4-way pallets; can be stored outside; and are covered with a weather resistant pallet cover and 2 layers of UV protected stretch wrap.

- o **BOX** packaging consists of cardboard boxes containing 30 lbs. (13.6 kg) of product with 75 boxes per pallet, weighing approximately 2250 lbs. (1020 kg). Boxes contain a quick melting release film for easy removal and are taped closed, without any staples.
- o **Meltable** packaging consists of approximately 30 lbs. (13.6 kg) completely meltable packages that are interlocked stacked on pallets. To use, the pallet wrap is removed, and individual blocks are placed in the Melter. There are no individual cardboard boxes to open, empty, handle, or dispose of. Meltable packaging quickly melts into the product without affecting specification conformance. Meltable packaged sealant products are sold by the pallet only and individual packages are not intended for sale. For more details on meltable packaging go to <https://crafco.com/materials-documentation/>

WARRANTY

CRAFCO, Inc. warrants that CRAFCO products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, Crafco shall not be responsible for improperly applied or misused products. Remedies against Crafco, Inc., as agreed to by Crafco, are limited to replacing nonconforming product or refund (full or partial) of purchase price from Crafco, Inc. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by Crafco, Inc. whichever is earlier. There shall be no other warranties expressed or implied. For optimum performance, follow Crafco recommendations for product installation.

READ BEFORE USING THIS PRODUCT

GENERAL: These products are hot-applied, single component polymer/rubber modified products supplied in solid form used to seal or fill cracks or joints in asphalt concrete or Portland cement concrete pavements. These products are not fuel resistant and should not be used in fuel or oil spill prone areas. To use boxed materials, product is removed from the package, heated in a melter and applied to the pavement. For products in meltable packaging (PlexiMELT or NoBOX) and RoadSaver Gray materials, the entire package is added to the melter. Details on product specifications, climate and usage suitability, and product selection are contained in Product Data Sheets.

MELTING AND APPLICATION: These products must be melted in jacketed double boiler melters with effective agitation that meet requirements of Appendix XI.1 of ASTM D6690. CrafcO Supershot, EZ Series 2, and EZ Pour melters are recommended. Do not use direct fired or air heated machines unless stated on the product data sheet. Heat transfer oil should not exceed 525°F (274°C). The melter must be capable of safely heating product to 400°F (204°C). **CAUTION:** Stop agitation when adding product to prevent splashing. Product is heated to between the minimum application temperature and the maximum heating temperature which are shown on product containers and Product Data Sheets. These products are most effectively applied with pressure feed wand systems. RoadSaver, PolyFlex and Parking Lot products can also be applied using gravity feed pour pots (Part No. 40200 and 40201).

APPLICATION LIFE: Application life, when heated to application temperature, is approximately 12 to 15 hours and may be extended by adding fresh product. Product shall be agitated during installation. Product may be reheated once to application temperature, after initial heat up. When application life has been exceeded, RoadSaver and Parking Lot products will thicken, become "stringy" and may then gel. If this occurs, product should immediately be removed from the melter and discarded. Asphalt Rubber and PolyFlex products will soften when overheated or heated for too long.

PAVEMENT TEMPERATURES: Apply product when pavement temperature exceeds 40°F (4°C). Lower temperatures may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance (Part No. 45650) that puts no direct flame on the pavement. If installing at lower pavement temperature than 40°F (4°C), extreme care should be used to ensure that cracks or joints are dry and free from contaminants. Product temperature should be maintained at the maximum heating temperature. If installing at night, assure dew is not forming on pavement. Applied product should be checked by qualified personnel to assure adequate adhesion.

TRAFFIC CONTROLS: Place traffic controls in accordance with Part 6, Temporary Controls, of the FHWA Manual on Uniform Traffic Control devices (MUTCD) to protect the work site for the duration of the repairs.

CRACK / JOINT CLEANING: For appropriate adhesion, cracks or joints must be thoroughly clean and dry immediately prior to product installation. After widening or debris removal, and just prior to product installation, final cleaning shall use high pressure 90 psi (620kpa) minimum, dry, oil free compressed air to remove any remaining dust.

Both sides of the crack or joint shall be cleaned. Surfaces should be inspected to assure adequate cleanliness and dryness.

ASPHALT PAVEMENT CRACK SEALING: Crack sealing consists of installing extensible sealants into routed reservoirs in working cracks in pavements in good condition.

Reservoir Cutting: Based on the 98% LITPBIND temperature range (difference from high to low), cracks are to be routed as follows:

Temperature	Grade Range	Reservoir Width	Reservoir Depth
80°C or less		½" (12 mm)	¼" (19 mm)
86°C		¾" (19 mm)	¼" (19 mm)
92°C		1 1/8" (28 mm)	½" (12 mm)
98° or greater		1 ½" (38 mm)	½" (12 mm)

Reservoir width should not exceed 1 ½" (38 mm). Cutting should remove at least 1/8" (3 mm) from each side and produce vertical, intact surfaces with no loosely bonded aggregate. The pavement should be sound enough to resist significant spalling during cutting. Final reservoir width should not exceed twice the cutter width or 1 ½" (38 mm) maximum.

Installation and Finishing: After cleaning, sealant at the required temperature is installed in the reservoir. Sealant can be installed with up to a 3/8" (10 mm) underfill, flush fill, or with an overband cap that does not exceed 1/16" (1.5mm) above the pavement surface, and not greater than a 2" (50 mm) width beyond crack edges, depending on project specifications. These configurations are achieved using appropriate wand tips, shoes or squeegees. To reduce surface tack, CrafcO DeTack or other approved material may be applied.

ASPHALT PAVEMENT CRACK FILLING: Crack filling consists of installing flexible, traffic resistant product into prepared, cleaned, non-working pavement cracks. Filler can be installed in routed or unrouted cracks or in surface overbands.

Routed Reservoir – Routed reservoirs are recommended for longest life. Guidelines for determining reservoir use are:

1. Crack density should not exceed approximately 20% (linear feet of cracks per square feet of pavement area).
2. Pavement should be sound enough to resist significant spalling during cutting. (Final reservoir width should not exceed double the cutter width, or 1 ½" (38 mm) maximum)

Reservoir Dimensions – Determined as follows:

1. The cut should remove at least 1/8" (3mm) from each side of the crack and cut back to sound pavement.
2. Minimum width is ½" (12 mm), maximum is 1 ½" (38 mm).
3. Recommended cut depth is ¾" (19 mm).
4. Reservoirs are then cleaned with compressed air.

Cleaned Unrouted Cracks – Cracks may be cleaned and filled without reservoirs, but longer life is achieved with reservoirs. Cleaning consists of using high-pressure dry, clean compressed air, brushing, or vacuum techniques to remove debris.

Surface Overbands – Product can be applied in overbands after crack cleaning with compressed air. Overbands should not exceed 1/16" (1.5 mm) high above the pavement surface and not extend greater than 2" (50 mm) beyond each crack edge.

Filler Installation and Finishing – Same as sealant installation and finishing.

PORTLAND CEMENT CONCRETE PAVEMENT JOINT SEALING AND RESEALING: Joint sealing and resealing consist of installing extensible sealants into sawn and cleaned joint reservoirs in PCC pavements.

Reservoir Sawing – New concrete should be cured for at least 7 days prior to sawing the joint reservoir. Joint spacing should be at the design dimension, generally from approximately 12 to 20 ft. (3.7 to 6.2m). Joints shall be at least ¼" (6mm) wide and should not exceed 1½" (38mm). For new pavements designed with narrow joints using the initial narrow saw cut as the reservoir, spaced at 15 ft (5m) maximum, and when using low modulus type sealants, joint width may be as narrow as 1/8 inch (3mm). Contact Crafcro for more details. Reservoir depth should allow a sealant depth to width ratio of 1:1 to 2:1, sufficient depth for backer rod, and the specified surface recess. Reservoirs shall be cut no deeper than required. When resealing, old sealant can be removed by knives, plows or sawing. Sawing shall slightly widen the joint by 1/8 to ¼ inch (3-6mm) to remove all traces of old sealant and produce clean, intact vertical surfaces. Maximum joint width is 1 ½ inch (38mm).

Reservoir Cleaning – After sawing, joints shall be flushed with water to remove sawing slurry and allowed to dry. Just prior to installing sealant, both joint surfaces shall be cleaned using sandblasting, brushing or other means to remove any remaining of sawing residue. Final cleaning is then done with high-pressure (minimum 90 psi, 62N/cm²) clean, dry, oil free compressed air the same day that sealant is installed. Moisture and oil traps are required on the compressor. Joints must be inspected to assure cleanliness by rubbing a finger along each face to spot dust or other contaminants. If found, recleaning should occur until joints are completely clean and dry. The objective of sawing and cleaning is to provide vertical, intact, clean concrete bonding surfaces free from all contaminants and are dry.

Backer Rod – After cleaning, heat resistant backer rod (ASTM D5249, Type I) approx. 25% larger than the joint width shall be installed to the required depth without damage or punctures. Punctures or damage to backer rod may cause sealant bubbling.

Sealant Installation – Concrete should be cured at least 7 days prior to installing sealant. Sealant heated to required temperature is installed per project specifications. Typical installations include a recess up to ¼ inch (6mm), flush, or with a surface overband (maximum 1/16" (1.5mm) above the surface, and 2" (50 mm) maximum beyond each joint edge).

INSTALLATION PRECAUTIONS: In certain situations, additional consideration needs to be given to product selection and application geometries.

Parking lots and other areas subjected to slow moving traffic and pedestrians: Product used must be stiff enough at hot summer temperatures to resist pick up and should not be applied on top of the pavement surface. Product should have a high temperature grade at least one step above the LTPPBIND grade for the climate. For even better pick-up resistance, increase by two grades.

Pavement to receive an Overlay, Surface Treatment, or Seal Coat: Product will be subjected to overlay heat effects and carriers for surface treatments and seal coats. If product is applied on top of the pavement, and an overlay is then placed, bumps may occur during compaction. Refer to "Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed" (www.crafcro.com) for more information. Solvents or other carriers in surface treatments may soften product. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the product and treatment.

High Severity Cracked Areas: Highly cracked areas (fatigue cracks in wheel paths) should not be treated by covering cracks because pavement friction may be affected. These cracks can be filled if followed by a surface treatment or overlay to restore friction.

Fuel or Oil Spill Areas: These products should not be used in fuel or oil spill areas due to softening of the sealant that may occur. Sealant will not adhere to asphalt or concrete pavements surfaces that are contaminated with oil spills.

Crack Sealing or Filling in Pavements with Surface Treatments: When crack sealing or filling pavements with chip seals, slurry seals, and open graded friction courses, routing should be deep enough to extend through the surface treatment layer into the underlying asphalt concrete. This anchors product into solid pavement for better bonding.

CLEAN OUT: If melters used require clean out, follow manufacturer's instructions. If solvent is used, insure it does not contaminate product because dilution and flash problems may occur.

STORAGE: Pallets of product are protected with a weather resistant covering. During storage, this covering must be intact to prevent boxes from getting wet. If wet, boxes may lose strength and crush. Rips in the pallet covering should be repaired to maintain packaging integrity. Pallets should be stored on a dry, level surface with good drainage. Pallets should not be stacked because crushing of bottom boxes may occur. Product properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since these products are heated to elevated temperatures, it is essential that operations be conducted safely. All personnel need to be aware of hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use and safety information on the box and the product SDS. User should check D.O.T. requirements for transportation of product at elevated temperatures above 212°F (100°C).

HAZARDS ASSOCIATED WITH HOT-APPLIED

MATERIALS: Skin contact with hot materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Precautions are to be taken to prevent contact with hot material and to avoid inhalation of fumes for everyone in the vicinity. Safety precautions should include:

1. Protective clothing to prevent skin contact with hot material.
2. Care when adding product to melters to reduce splashing.
3. Careful operation of wands or pour pots that apply product.
4. Traffic and pedestrian control measures which meet or exceed Manual on Uniform Traffic Control Devices (MUTCD) requirements to prevent access to work areas while product is in a molten state.
5. Avoidance of material fumes.
6. Proper application configurations with a minimum amount of material excess.
7. Appropriate cleanup of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or Crafcro, Inc. This information includes:

1. Product Data Sheets
2. Safety Data Sheet,
3. Safety Manual
4. Sealing Cracks and Joints in Parking and Pedestrian Areas
5. "Bump Formation & Prevention In Asphalt Concrete Overlays Which Have Been Crack Sealed"- visit crafcro.com/references/ for more information.