

**Approved Products List**  
**Retroreflective Sign Sheeting**  
**Material Code - 715.009.002**  
**Effective Date: July 19, 2016 (see notes 1, 2, and 22)**

<u>TRANSFER FILMS</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	TPM5 clear transfer tape (see note 11)	1433733
Avery Dennison ADC1.01.664	Z1 <del>XXX</del> clear application tape (see note 11)	1433734

<u>TYPE ASTM-I</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	34 <del>XX</del> Series (See note 3)	1433735
Avery Dennison ADC1.01.664	T-15 <del>XX</del> Series (See note 3)	1394149

<u>TYPE ASTM-III</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
Avery Dennison ADC1.01.664	WR-610 <del>X</del> Series (see note 4)	1435782
Nippon Carbide NCX2.01.715	ULG-II N8 <del>XX</del> Series (See note 15)	1394159

<u>TYPE ASTM-IV</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	Series 393 <del>X</del> (See note 3)	1392883
3M 3MC1.01.709	Series 331 <del>X</del> (See note 4)	1433736
3M 3MC1.01.709	Series 333 <del>X</del> (See note 5)	1433737
3M 3MC1.01.709	Series 33 <del>X</del> (See note 5)	1394157
3M 3MC1.01.709	Series 3340 (See note 17)	1433738
Avery Dennison ADC1.01.664	T-6 <del>XXX</del> Series (See note 3)	1394161
Avery Dennison ADC1.01.664	W-6 <del>XXX</del> Series (See note 4)	1394160
Avery Dennison ADC1.01.664	WR-71 <del>XX</del> Series (see note 4)	1435783
Orafol of Americas OOA1.01.715	5900 Series (See note 20)	1436962
Orafol of Americas OOA1.01.715	5930 Series (See note 4)	1436963

<u>TYPE ASTM-VI</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	RS-2X Series (See note 6)	1394162
3M 3MC1.01.709	RS-6X Series (See note 6)	1458703
Orafol of Americas OOA1.01.715	High Performance Series (See note 6)	1394163

<u>TYPE ASTM-IX</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	399X Series (See note 7)	1394171
3M 3MC1.01.709	3981 Series ( <b>NOTICE: See note 19</b> )	1394169
3M 3MC1.01.709	3983 Series (See note 13)	1394170
Avery Dennison ADC1.01.664	T-950X (See note 7)	1394166
Avery Dennison ADC1.01.664	T-9511 (See note 12)	1394167
Avery Dennison ADC1.01.664	T-9513 (See note 13)	1394168
Avery Dennison ADC1.01.664	W-9514 (See note 10)	1394165
Nippon Carbide NCX2.01.715	Nikkalite CRG 95847 (See note 16)	1424104
Orafol of Americas OOA1.01.715	5930-038 (See note 16)	1436964

<u>TYPE ASTM-XI</u>		
<u>MANUFACTURER</u>	<u>PRODUCT</u>	<u>LAB APPROVAL NUMBER</u>
3M 3MC1.01.709	409X Series (See note 14)	1395497
3M 3MC1.01.709	4081 Series (See note 8)	1395498
3M 3MC1.01.709	4083 Series (See note 9)	1395499
3M 3MC1.01.709	4084 Series (See note 18)	1394172
Avery Dennison ADC1.01.664	T-1150X (See note 7)	1424106
Avery Dennison ADC1.01.664	T-11511 (See note 12)	1424107
Avery Dennison ADC1.01.664	T-11513 (See note 13)	1424108
Avery Dennison ADC1.01.664	W-11514 (See note 10)	1424105

**NOTES:**

1 - Note, significant revisions have been made to the WVDOH Material Standard Specifications for retroreflective sheetings. The Special Provision which includes these revisions is for Section 715 of the Standard Specifications, is dated 9/28/14, and includes revisions to Section 715.9.2. This APL has been updated to correspond with this Special Provision. The following tables are provided in order to determine the applicable lists of approved material types above to be utilized for the project.

If the Special Provision referenced above **is not** applicable to the project, the following table shall be utilized for determining the applicable material Type approved list(s) to be used. This shall be based on the material Type specified in other Sections of the Standard Specifications applicable to the project, on detail sheets (such as Standard Details or fabrication details) applicable to the project, and Plan Notes or Special Details included in the project plans. Conflicting notes associated with specific materials listed within each category shall take precedence. The appropriate designations from the right side of this table shall be the material types referenced on shop drawings submitted by the Contractor.

MATERIAL "TYPE" REFERENCE	APPLICABLE "TYPE(S)" LISTED ABOVE
I, ASTM-I, II, ASTM-III, IV, ASTM-IV	ASTM-III or ASTM-IV
V	ASTM-VI for roll-up signs; ASTM-IX or ASTM-XI for aluminum substrate signs
VI, ASTM-IX, ASTM-XI	ASTM-IX or ASTM-XI

If the Special Provision referenced above **is** applicable to the project, the following table shall be utilized for determining the applicable material Type approved list(s) to be used. This shall be based on the material Type specified in other Sections of the Standard Specifications applicable to the project, on detail sheets (such as Standard Details or fabrication details) applicable to the project, and Plan Notes or Special Details included in the project plans. Conflicting notes associated with specific materials listed within each category shall take precedence. The appropriate designations from the right side of this table shall be the material types referenced on shop drawings submitted by the Contractor.

MATERIAL "TYPE" REFERENCE	APPLICABLE "TYPE(S)" LISTED ABOVE
I, ASTM-I, II, ASTM-III, IV, ASTM-IV	ASTM-IV
V	ASTM-VI for roll-up signs; ASTM-XI for aluminum substrate signs
VI, ASTM-IX, ASTM-XI	ASTM-XI

- 2 - Matched component inks and overlay films, when required to be used, shall be the components recommended by the sheeting manufacturer providing warranty coverage.
- 3 - Various colored pressure sensitive sheetings for use with aluminum substrate signs, as specified. The reflective sheeting material and all manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 4 - Various colored pressure sensitive sheetings for use with plastic substrate work zone channelization and delineation devices, including "permanent" surface mounted tubular markers and soil mounted delineator posts, as specified and as recommended by the sheeting manufacturer.
- 5 - Pre-stripped pressure sensitive sheeting for use with rigid plastic substrate barricades, as recommended by the sheeting manufacturer.
- 6 - Sheeting for use in manufacturing work zone roll-up signs.
- 7 - Various colored pressure sensitive sheetings for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. This approval does not include fluorescent materials. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 8 - Fluorescent yellow pressure sensitive sheeting for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 9 - Fluorescent yellow green pressure sensitive sheeting for use with aluminum substrate signs, as specified and as recommended by the sheeting manufacturer. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 10 - Fluorescent orange pressure sensitive sheeting for use with aluminum substrate signs. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 11 - The Transfer Film category is applicable to the WVDOH's raw material supply Contract only and does not apply to private fabricators.
- 12 - Fluorescent yellow pressure sensitive sheeting for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.

- 13 - Fluorescent yellow green pressure sensitive sheeting for use with aluminum substrate signs, as specified and as recommended by the sheeting manufacturer. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 14 - Various colored pressure sensitive sheetings for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. This approval does not include fluorescent materials. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 15 - Various colored pressure sensitive sheetings for use with aluminum substrate signs. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. The manufacturer matched components are not approved for manufacturing purposes within the WVDOH Central Sign Shop.
- 16 - Fluorescent orange pressure sensitive sheetings for use with aluminum substrate signs. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. The manufacturer matched components are not approved for manufacturing purposes within the WVDOH Central Sign Shop.
- 17 - Pressure sensitive sheeting for use with traffic cones, as specified and as recommended by the sheeting manufacturer.
- 18 - Fluorescent orange pressure sensitive sheeting for use with aluminum substrate signs. This material is classified as being rotationally sensitive. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop.
- 19 - Fluorescent yellow pressure sensitive sheeting for use with aluminum substrate signs and delineators, as specified and as recommended by the sheeting manufacturer. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. All manufacturer matched components are approved for manufacturing within the WVDOH Central Sign Shop. **NOTE: Approval of this material has been placed on "hold". No finished products utilizing this material are to be supplied on any projects advertised on or after 7/25/12.**
- 20 - Various colored pressure sensitive sheetings for use with aluminum substrate signs. The material may also be used for plastic substrate work zone channelization and delineation devices, including "permanent" surface mounted tubular markers and soil mounted delineator posts, as specified and as recommended by the sheeting manufacturer. The reflective sheeting material is approved for manufacturing purposes within the WVDOH Central Sign Shop. The manufacturer matched components are not approved for manufacturing purposes within the WVDOH Central Sign Shop.
- 21 - Deleted
- 22 - The value(s) "X" in material designations are place holders which indicate variable numerical values. These values vary based on different colors and/or widths (cut widths or stripe widths) configurations of the material and/or intended substrates for the material.