## 2014 Traffic Sign Retroreflective Sheeting Identification Guide



U.S. Department of Transportation Federal Highway Administration

AGAGAS

This document is intended to help identify sign sheeting materials for rigid signs and their common specification designations. It is not a gualified product list. FHWA does not endorse or approve sign sheeting materials. Many other sheeting materials not listed here are available for delineation and construction/work zone uses.

Many sign sheeting materials have watermarks and/or patterns that are used to identify the material type and manufacturer. The watermarks shown in this guide have been enhanced. The watermarks will be less visible in practice and may not be present on smaller pieces of sheeting due to the spacing.

Retroreflectiv	ve Sheeting	<b>Materials M</b>	ade with Gla	ass Beads	
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Example of Sheeting (Shown to scale)			2					
ASTM D4956-04	I		II					
ASTM D4956-13	l	II	II					III
AASHTO M268-13	(1)	(1)	(1)	А	А	А	А	А
Manufacturer	Several companies	Avery Dennison®	Nippon Carbide	3M™	ATSM, Inc.	Avery Dennison®	Nippon Carbide	ORAFOL Americas Inc
Brand Name	Engineer Grade	Super Engr Grade	Super Engr Grade	High Intensity	High Intensity	High Intensity	High Intensity	ORALITE® High Intensity
Series	Several	T-2000	15000	2800 3800	ATSM HI	T-5500	N500	5800
NOTES:	(2) (8)	(3) (4) (9)	(4)	(3) (4) (9)	(4)	(4)	(4)	(4)
<ol> <li>Sheeting material do</li> <li>Glass Bead Engineer</li> </ol>	bes not meet minimι Grade sheeting is ι	Im AASHTO clas	sification criteria. any patterns or ide	ntifying marks.				

3) Material no longer sold in the United States as of the date of this publication.

4) Section 2A.08 of the 2009 MUTCD (http://mutcd.fhwa.dot.gov) does not allow this sheeting type to be used for new legends on green signs.

ASTM D4956-04 is referenced in Table 2A-3 of the 2009 MUTCD.

- ASTM D4956-13 is the most current ASTM sign sheeting specification (the 2013 version is designated by "-13").
- AASHTO M268-13 is the most current AASHTO specification (the 2013 version is designated by "-13").

## Manufacturer Contact Information

3M - http://www.3M.com/roadwaysafety	ATSM, Inc http://www.atsminc.com				
Avery Dennison - http://www.reflectives.averydennison.com	Nippon Carbide - http://www.nikkalite.com				
ORAFOL Americas Inc. – http://www.orafolamericas.com					

FHWA Publication Number: FHWA-SA-14-022. You may download and print the electronic version of this document, available at www.fhwa.dot.gov/retro

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Retroreflective Sheeting Materials Made with Micro-Prisms								
Example of Sheeting (Shown to scale)	EGP					HIM		
D4956-04	(5)	(5)	III, IV	III, IV, X	(5)	(5)	(5) / X	(5)
D4956-13	Ι	Ι	III, IV	III, IV	III, IV	III, IV	VIII	VIII
M268-13	(6)	(6)	В	В	В	В	В	В
Manufacturer	3M™	Avery Dennison®	Avery Dennison®	3M™	ORAFOL Americas Inc	Nippon Carbide	Nippon Carbide	3M™
Brand Name	EGP	PEG	HIP	HIP	ORALITE® HIP	НІМ	Crystal Grade	Reflective Sheeting
Series	3430	T-2500	T-6500	3930	5900/5930	CRG 94000	CRG 92000	3940
NOTES:	(8)	(8)						
Example of Sheeting (Shown to scale)								
D4956-04	VIII	VII, VIII, X	IX	IX	(5)	(5)	(5)	(5)
D4956-13	VIII	VIII	IX	IX	IX	IX	XI	XI
M268-13	В	(7)	В	В	В	В	D	D
Manufacturer	Avery Dennison®	3M™	3M™	Avery Dennison®	Nippon Carbide	ORAFOL Americas Inc	3M™	Avery Dennison®
Brand Name	MVP Prismatic	Diamond Grade™ LDP	Diamond Grade™ VIP	OmniView™	Crystal Grade	ORALITE®	Diamond Grade™ DG3	OmniCube™
Series	T-7500	3970	3990	T-9500	95000	7900	4000	T-11500
NOTES:		(9)			(9)			
<ol> <li>5) Material was either unavailable in 2005 (previous version of this Guide) or unassigned in the 2004 version of ASTM D4956.</li> <li>6) Sheeting material does not meet minimum AASHTO classification criteria.</li> <li>7) Material has been discontinued prior to AASHTO M268-10.</li> <li>8) Section 2A.08 of the 2009 MUTCD (<u>http://mutcd.fhwa.dot.gov</u>) does not allow this sheeting type to be used for new yellow or orange signs, or new legends on green signs.</li> <li>9) Material no longer sold in the United States as of the date of this publication.</li> </ol>								
Resources								

Federal Highway Administration – http://www.fhwa.dot.gov/retro

Manual on Uniform Traffic Control Devices (MUTCD) – http://mutcd.fhwa.dot.gov

Texas A&M Transportation Institute – http://tti.tamu.edu/visibility

ASTM – http://www.astm.org

AASHTO – http://www.transportation.org