



3186 CR 550  
FRANKFORT, OHIO 45628  
(740) 998-2122  
FAX (740) 998-2073  
TOLL FREE (800) 992-8633

Date: December 10, 2015  
To: Pelham, NH  
Attn: Board of Selectmen  
From: Alan Christopher  
RE: Bid for signs and related items

To Whom It May Concern,

Please note that we are bidding signs with Avery Dennison series 6500 HIP, ASTM Type IV reflective sheeting. The product bulletin is attached. Our lead time is 30-45 days after receipt of order. We do not bid posts, brackets, or plastic barricades. We have a minimum order of \$250.00.

Best Regards,

A handwritten signature in blue ink, appearing to read 'Alan Christopher'.

Alan Christopher  
AC/MFM



TOWN OF PELHAM, NH  
HIGHWAY DEPARTMENT  
INVITATION TO BID

The Pelham Board of Selectmen is accepting sealed bids for the following Highway Department items:

Aggregates  
Sand  
High Density Polyethylene Culvert Pipe  
Plow Blades  
Calcium Chloride  
Hottop and Cold Patch  
Concrete Blocks and Bricks  
Signs and Related Items  
Painting of Traffic Lines  
Roadside Mowing  
Catch Basin Cleaning  
Tree Removal  
Equipment Rental with Operator  
Listed Below

Front End Loader Rental	3-4 C.Y. Bucket
Rubber Tired Excavator with Knuckle Attachment	42,000-46,000 lb. Class
Grader	20,000-25,000 lb. Class
Bulldozer	14,000-18,000 lb. Class
Street Sweeper	12,000-16,000 lb. Class
Ten Wheel Dump Truck	15-16 C.Y. Body
Excavator with Demolition Hammer	44,000-48,000 lb. Class

The sealed bids will be for a period from January 1, 2016 through December 31, 2016. Bid documents may be picked up at the Pelham Selectmen's Office at 6 Village Green, Pelham, NH or found on the website @ [www.pelhamweb.com/rfp](http://www.pelhamweb.com/rfp).

All bids must be received in the Selectmen's Office at 6 Village Green, Pelham NH by 4:00 p.m. on December 17, 2015. All bids must be marked on the cover envelope "Highway Bids". All bids will be opened at the Town conference Room, 6 Village Green, Pelham, NH on Friday, December 18, 2015 at 10:00 A.M. Complete bid packet is posted on the Town Website [www.pelhamweb.com/rfp](http://www.pelhamweb.com/rfp) for your convenience. Bid results will be posted on the website as well.

All decisions in reference to the bidding and the selection of the contractor will be made by the Board of Selectmen or an authorized agent. The Town reserves the right to reject any and all bids in part or whole without stated reason or waive any bid informality deemed in the best interest of the Town and to select the bid most advantageous to the Town

Delivery of bid items will be made to the Highway Department yard or to various locations throughout the Town of Pelham, 31 Newcomb Field Parkway, Pelham, NH 03076. All materials to be bought on as needed basis. For more information call Frank Ferreira Acting Highway Agent, at (603) 635-8526.



# BID SHEET AND SPECIFICATIONS SIGNS AND RELATED ITEMS

The Town of Pelham, N.H. is seeking competitive bids for the supply of street signs, traffic signs, signposts, barricades, related hardware etc. to be used by the Highway Department from January 1, 2016 through December 31, 2016. All sealed bids must be received in the Selectmen's Office at 6 Village Green, Pelham, NH by 4:00 p.m. on December 17, 2015. All bids must be marked on the cover envelope "Highway Bids". All bids will be opened at the Town Conference Room on Friday, December 18, 2015 at 10:00 a.m. Complete bid packet is posted on the Town Website [www.pelhamweb.com/rfp](http://www.pelhamweb.com/rfp) for your convenience. Bid results will be posted on the website as well. All materials must meet the latest edition of State of New Hampshire specifications. **All sheeting must comply with ASTM D4956 ASTM Type III**

ITEM	DELIVERED PRICE PER ITEM and PER DOZEN	
	Each	Dty-12
30" x 30" stop sign retroreflectivity Sheeting on .080 aluminum	31.38	376.56
30" x 30" right or left curve sign retroreflectivity sheeting on .080 aluminum	31.38	376.56
24" x 18" caution children sign with symbol retroreflectivity sheeting on .080 aluminum	15.06	180.72
24" x 18" chevron sign retroreflectivity sheeting on .080 aluminum	15.06	180.72
24" x 18" 15, 20, 25, 30, or 35 mph speed limit sign on retroreflectivity sheeting aluminum	15.06	180.72
24" x 18" no parking sign retroreflectivity sheeting on .080 aluminum	15.06	180.72
Blind Driveway sign 24" X 18" retroreflectivity sheeting on .080 aluminum	15.06	180.72
24" X 24" Dead End sign or 24" X 24" No Outlet sign retroreflectivity Sheeting on .080 aluminum	20.08	240.96
10 ft green channel sign posts 30 3/8" holes on 1" center	Del. price 50 or more — No bid	
6 ft green channel sign posts 3/8: holes on 1" centers	Del. price 50 or more — No bid	
9" wide street signs, extended .091 thickness with green reflectorized copy with white 6" uppercase letters for street names and 4" uppercase letters for street abbreviations Retroreflectivity Sheeting	42.00	504.00



Sign Specs

U Channel post bracket for 9" extruded plates	: Del. price per item and dozen
	No bid
Wing bracket (cantilever) for 9"extruded plates	: Del. price per item and dozen
	No bid
Plastic barricades 26" X 36" with retroreflectivity rail faces	:
	No bid

Delivery to be made to Highway Department yard, 31 Newcomb Field Parkway,  
Pelham, NH. All materials to be bought on as needed basis.

COMPANY	DATE
Roccol, Inc.	12-10-15
ADDRESS	
3186 County Rd. 550, Frankfort OH 45628	
AUTHORIZED SIGNATURE	
Alan Christopher	
NAME PRINTED	
Alan Christopher	
TELEPHONE #:	
740-998-2122	



# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

Avery Dennison® T-6000& W-6000 Series High Intensity Microprismatic (HIP) Retroreflective Film for permanent and temporary traffic signage, is a high-quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. Its unique microprismatic construction provides a high level of retroreflectivity for demanding traffic control situations.

T-6000 & W-6000 Series sheeting is an Omni-Directional microprismatic film that incorporates tiles of microprisms arranged in multiple orientations. This feature – “Smart at Every Angle” benefits agencies by providing confidence that all signs will perform with uniform visual reflectivity at all sign face orientations.

### Features:

- Omni-Directional
- High Intensity Microprismatic Retroreflective Performance
- Field proven long term durability on safety devices worldwide
- Uniform daytime and nighttime visual appearance

### Conversion:

- ☒ Screen Printing
- ☒ Thermal Transfer Printing
- ☒ Eco Solvent Inkjet Printing
- ☒ Thermal Die-Cut
- ☒ Flat Bed Sign-Cut
- ☒ Drum Roller Sign-Cut
- ☒ Steel Rule Sign-Cut

### Applications:

- ☒ Rigid Permanent and Temporary Outdoor Signage
- ☒ Rigid Work Zone Devices
- ☒ Safety Devices that Require Robust Retroreflective Performance

\*See Page 5 for Nomenclature

\*\*3 Year Durability

Product Data Sheet  
Page 1 of 7  
Reflective Solutions  
7542 North Natchez Ave.  
Niles, IL 60714



### Performance:

ASTM D4956 Type III & IV,  
CUAP Table 7  
See Page 2 for complete list.



**Orientation:** Omni-Directional



**Durability:** 10 year  
Vertical Exposure only



**Face:** High-Gloss Acrylic  
Retroreflective Film with  
Microprisms



**Adhesive:** Permanent  
Pressure Sensitive



**Liner:** Polypropylene Film

### Product Availability\*:

Traffic Products		
T-6500	White	
T-6500-D	White (Matan)	
T-6501	Yellow	
T-6501-D	Yellow (Matan)	
T-6505	Blue	
T-6507	Green	
T-6508	Red	
T-6509	Brown	
Work Zone Products**		
W-6100	White	
W-6200	White	
W-6204	Orange	
W-6504	Orange	
W-6511	Fluorescent Yellow	
W-6513	Fluorescent Yellow-	
W-6142	Orange Pre-Striped Barricade	4" Left
W-6143		4" Right
W-6144		6" Left
W-6145		6" Right
W-6242		4" Left
W-6243		4" Right
W-6244		6" Left
W-6245		6" Right



[www.reflectives.averydennison.com](http://www.reflectives.averydennison.com)



# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

### Retroreflectivity:

**Table A:**

Min. coefficients of retroreflection ( $R_A$ )<sup>1</sup> per ASTM D4956<sup>2</sup> Type III & IV

Observation Angle	Color	Entrance Angle	
		- 4°	+ 30°
0.1° <sup>3</sup>	White	500	240
	Yellow	380	175
	Orange	200	94
	Blue	42	20
	Green	70	32
	Red	90	42
	Brown	25	12
	Fluorescent Yellow	300	140
	Fluorescent Yellow-Green	400	185
0.2°	White	360	170
	Yellow	270	135
	Orange	145	68
	Blue	30	14
	Green	50	25
	Red	65	30
	Brown	18	8.5
	Fluorescent Yellow	220	100
	Fluorescent Yellow-Green	290	135
0.5°	White	150	72
	Yellow	110	54
	Orange	60	28
	Blue	13	6.0
	Green	21	10
	Red	27	13
	Brown	7.5	3.5
	Fluorescent Yellow	90	40
	Fluorescent Yellow-Green	120	55

**Table B:**

Min. coefficients of retroreflection ( $R_A$ )<sup>1</sup> CUAP Table 7 (EN-12899 RA2)

Observation Angle	Color	$\beta 1$ ( $\beta 2=0^\circ$ ) Entrance Angle		
		+ 5°	+ 30°	+ 40°
12° (0.2°)	White	250	150	110
	Yellow	170	100	70
	Orange	100	60	29
	Blue	20	11	8
	Green	45	25	12
	Red	45	25	15
	Brown	12	8.5	5.0
20° (0.33°)	White	180	100	95
	Yellow	120	70	60
	Orange	65	40	20
	Blue	14	8.0	7.0
	Green	21	12	11
	Red	25	14	13
2°	White	5.0	2.5	1.5
	Yellow	3.0	1.5	1
	Orange	1.5	1	--
	Blue	0.2	--	--
	Green	0.5	0.3	0.2
	Red	1	0.4	0.3
	Brown	0.2	--	--

HIP Series sheeting **exceeds** all values listed in **Table A** and **Table B**.

HIP Series sheeting also **exceeds** the current applicable requirements for the following specifications:

ASTM D4956	International
AASHTO M268	USA
CUAP	EU
GB/T 18833	China
N-CMT-5-03-001	Mexico
UNE 135340	Spain
NF XP98520	France
BSI 8408	UK
UNI 11122	Italy
JIS Z9117	Japan
SANS 1519-1	South Africa
AS/NZS 1906.1	Australia New Zealand
ABNT NBR 14644	Brazil
IRAM 3952	Argentina

Avery Dennison suggests you obtain the current requirements from your local agency and ensure product conformance with such requirements. Your Avery Dennison Representative can assist you in this regard.

$R_A$  =  
candelas per foot-candle per square foot (cd/ft<sup>2</sup>) OR  
Candelas per lux per square meter (cd/lx/m<sup>2</sup>)

<sup>2</sup> Measured according to ASTM E810

<sup>3</sup> Note that 0.1° Observation angle is a "supplemental Requirement" in ASTM D4956. It represents long highway viewing distances of about 900 ft (275 Meters) and greater.



# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

### Colors and Specification Limits:

Figure A: Daytime Color

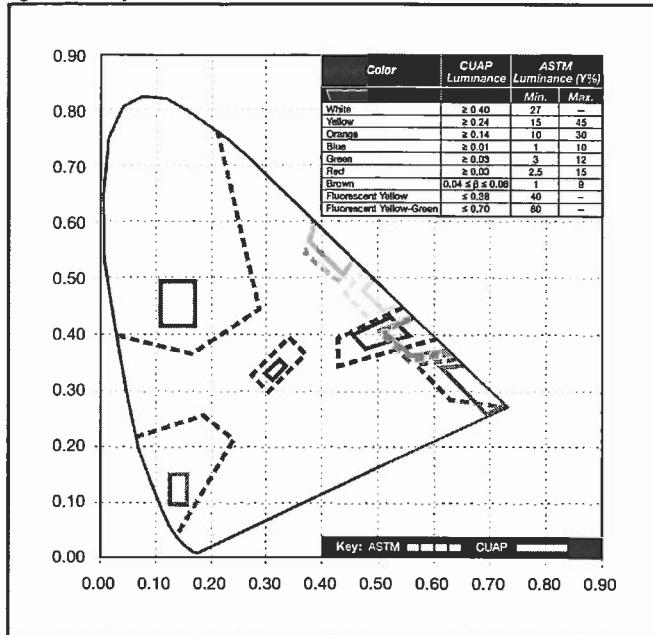
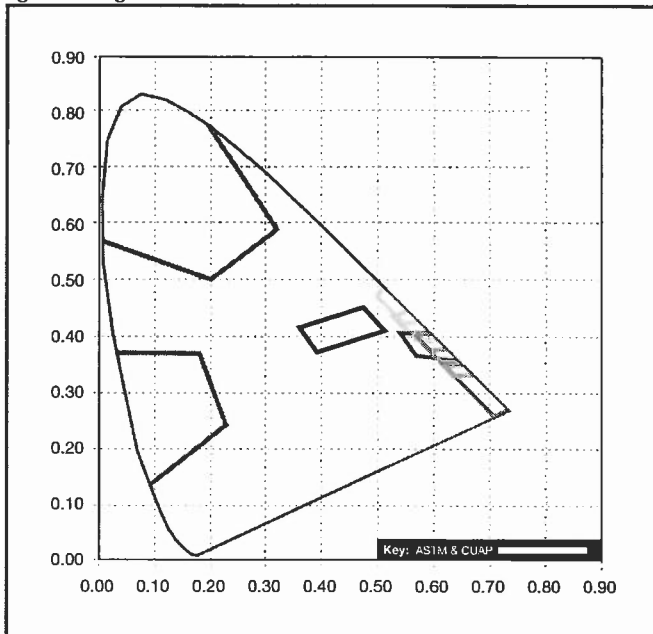


Figure B: Nighttime Color



HIPSeries sheeting **meets** the current applicable daytime and nighttime color requirements for ASTM D4956 and CUAP as well as standards listed on Page 2.

### Chromaticity Coordinate Limits

Figures A & B show the four pairs of chromaticity coordinates from ASTM D4956 and CUAP on the color grid.

### Daytime Color

The four pairs of chromaticity coordinates in **Figure A** determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65 and CIE Publication no. 15 using CIE Standard Illuminant D65 and CIE 45/0 geometry. Luminance factor shall comply with table in **Figure A**.

*Note:* The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colors

### Nighttime Color

The four pairs of chromaticity coordinates in **Figure B** determine the acceptable color measured using CIE Illuminant A, observation angle of 0.33 degrees, entrance angle of +5 degrees, source and receiver apertures not to exceed 10 minutes of arc, and CIE 1930 (2 degree) standard observer per ASTM D4956.



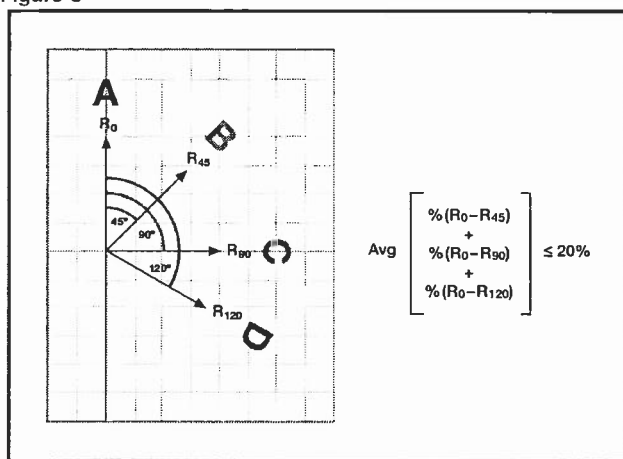
# Avery Dennison® T-6000& W-6000 HIP Series High Intensity Microprismatic Retroreflective Film

Issued: March 2014

## Sheeting Orientation:

The American Association of State Highway Transportation Officials (AASHTO) has recognized that some retroreflective films are rotationally (orientation) sensitive. Because this impacts sign luminance, AASHTO has defined a specification to measure orientation performance. **Figure C** shows how the orientation sensitivity is measured. In order for a film to be considered rotationally insensitive the average percent difference (shown in **Figure C**) must be less than or equal to 20%.

Figure C



When measured for orientation sensitivity as described in AASHTO M 268-10, all Avery Dennison sheeting, both beaded and prismatic, **pass** the specification as **rotationally insensitive**. Therefore no special identification marks or other features (such as a datum mark, or distinctive seal pattern) are required to denote optimum orientation for sheeting. Because the user can expect visual uniformity regardless of orientation, no costly and cumbersome fabrication techniques are required to orient sheets, cut sign legend or border tape during sign fabrication.

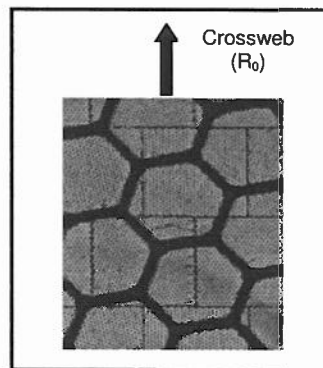
Specifying agencies and sign fabricators are cautioned that some retroreflective sheetings, even of the same ASTM "Type" may not provide consistent luminance for desired night visibility if the sheeting is not applied in the optimal, or in uniform orientation. Agencies and fabricators should be aware of this concern and discuss the potential effects of rotation on luminance of specific sheetings with their material supplier before beginning installation and/or fabrication.

HIP Series sheeting is Omni-Directional and **passes** the AASTHO specification as being **rotationally insensitive**.

Retroreflectivity  $R_A$  values taken per ASTM E810  
0.5° Observation angle and  
-4° or 5° Entrance angle

As a datum for laboratory measurements  $R_0$  is identified in the crossweb direction. See **Figure D**

Figure D



Watermark: HIP Series contains the watermark seen in **Figure E**.

Figure E

HIP Lot #

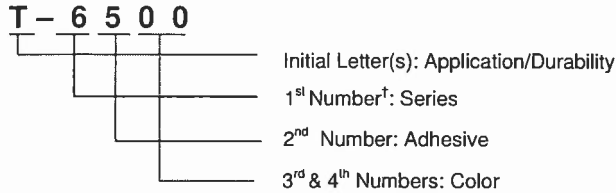


# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

### Nomenclature:



Initial Letter	Application	Durability*
T	Traffic/Permanent Sheeting	10 year
W	Work Zone Sheeting	3 year
WR	Work Zone Reboundable	3 year

\* See your local representative for complete details.

Series	6000
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2 <sup>nd</sup> Number	Substrate
1	Pressure Sensitive for Plastic Substrates
2	Pressure Sensitive for Wood Substrates
5	Pressure Sensitive for Aluminum Substrates

3 <sup>rd</sup> & 4 <sup>th</sup> Numbers	Color
00	White
01	Yellow
04	Orange
05	Blue
07	Green
08	Red
09	Brown
11	Fluorescent Yellow
13	Fluorescent Yellow-Green
14	Fluorescent Orange
42	4" LEFT Orange Pre-Striped Barricade
43	4" RIGHT Orange Pre-Striped Barricade
44	6" LEFT Orange Pre-Striped Barricade
45	6" RIGHT Orange Pre-Striped Barricade

<sup>†</sup>OmniCube is the exception and leads with the number 11

### WARRANTY

Avery Dennison T-6000 & W-6000 prismatic retroreflective sheeting ("Product(s)") are warranted to be free from defects in material and workmanship for one (1) year from date of purchase (or the period stated on the specific product information literature in effect at time of delivery, if longer). It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective Product without charge at Avery Dennison's plant or at the location of Product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the Product.

### CONDITIONS

This warranty shall be effective only if all of the following conditions are met:

Fabrication and/or installation must occur within one (1) year from the date of purchase.

The failure must have resulted solely from a manufacturing defect or deterioration of the Product due to natural causes under the Performance Warranty. Without limiting the generality of the foregoing, there is no warranty for the failure of the sheeting due to improper sign fabrication, storage, handling, installation, maintenance, failure of the sign substrate, vandalism or mischief. Slight color fading, cracking, chalking, edge lifting, or slight reduction in gloss or reflectivity will not materially detract from appearance and does not constitute a breach of warranty.

Avery Dennison has published instructional bulletins pertaining to the storage, handling, and cleaning of Product, approved substrates, and application procedures (collectively, the "Procedures"). The Product must have been processed and applied to blank, clean material in accordance with the Procedures, as such may be amended from time to time. Avery Dennison reserves the right to reject any warranty claim where the fabricator or installer cannot satisfactorily prove or demonstrate that the Avery Dennison procedures were utilized. The date of installation, warranty registration, and claim procedures established by Avery Dennison must be followed, and failure to follow such procedures shall void this warranty. Replacement Product carries only the unexpired warranty portion of the Product it replaces. The Product must be properly stored and applied within the shelf-life as stated in the applicable Avery Dennison Product Data Sheet including adhesive and other material product data sheets.



# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

### Characteristics:

Property	Value	Instructional Bulletins
Shelf-Life	1 year from date of purchase when stored at the following conditions; 65°-75°F (18°-24°C) and 50% ± 5% R.H.	#8.00
Typical film Caliper	18 – 19 mils (457 – 483µ)  Orange: 17 – 18 mils (432 – 457µ)	NA
Min. Application Temperature	50° F (10° C)	#8.10
Service Temperature	-10°F to +150°F (-23°C to + 65°C)	#8.00
Screen Printing	Long term durability of screen printing in combination with HIPseries sheeting is warranted when used with approved inks and overlays. See Page 7.	#8.30 #8.55
Eco Solvent Inkjet Printing	Long term durability of inkjet printing in combination with HIP series sheeting is warranted when used with approved inks and printer systems. See Page 7.	#8.61
Thermal Transfer Printing	Long term durability of Thermal Transfer Printing in combination with any HIP series sheeting is warranted when used with approved ribbons and printer systems.	#8.60

#### ADDITIONAL LIMITATIONS

Unintended Use: This warranty only applies to Product that is used by professional converters and installers for the defined end uses and in the combinations described in the applicable Avery Dennison Product Data Sheets and Instructional Bulletins. For any other use, the user is responsible for determining the suitability of the Product, and for any and all risk or liability associated with that use or application, and the user agrees to indemnify, defend and hold harmless Avery Dennison for any claims, losses, damages, judgments, expenses and/or expenses, including attorneys fees, resulting from such use or application. This warranty is expressly conditioned on the Product being processed by professional converters or installers in accordance with the Avery Dennison recommended written processing instructions, and being applied to properly prepared surfaces and cleaned and maintained in accordance with recommended Avery Dennison procedures. It is the converters, installers or other users responsibility to perform incoming raw material quality inspections, to assure proper surface preparation and that approved application procedures are followed, to retain converted samples, and to immediately cease using and notify Avery Dennison and/or its authorized agent or distributor of any Product. Materials and/or finished Product discovered to be (or reasonably capable of being discovered to be) defective.

Misuse and Force Majeure: Avery Dennison has no obligations or liability under this warranty with respect to Product that has been altered, modified, damaged, misused, abused, subject to accident, neglected or otherwise mishandled or improperly processed or installed. Product is not warranted against premature failure caused by chemical, environmental or mechanical means such as, but not limited to, vandalism, cleaning solutions, paints, solvents, moisture, temperature, mechanical washing equipment, engine fuel spills, engine exhaust, steam, organic solvents or other spilled chemicals pollutants, including industrial and volcanic ash. Damage from fire, structural failure, lightning, accidents, and other force majeure events are not covered by this warranty.

Third Party Product: Avery Dennison assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where installer or converter uses or reference is made to a commercially available product, made by another manufacturer, it shall be the responsibility of the user, installer or converter to ascertain the precautionary measures for its use outlined by the manufacturer.

The remedies provided under this warranty are exclusive. In no event shall Avery Dennison be responsible for any direct, indirect, incidental or consequential damages or specific relief whether foreseeable or not, caused by defects in such Product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence. In no event shall Avery Dennison's liability hereunder exceed the remedies specifically set forth in this warranty. Avery Dennison's liability shall be limited, at Avery Dennison's option, to the purchase price, replacement of the defective Product and in some cases when authorized by Avery Dennison the repair and replacement of the defective Product.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHERS. ANY AND ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.



# Avery Dennison® T-6000& W-6000 HIP Series

## High Intensity Microprismatic Retroreflective Film

Issued: March 2014

### Converting Information:

The following Avery Dennison literature will provide information to the user for proper application, storage, and other requirements. Find the latest information on the Avery Dennison website, [www.reflectives.averydennison.com](http://www.reflectives.averydennison.com). We encourage you to check our website periodically for updates.

#### Approved Screen Printing Inks, Overlays, and Printer Systems:

Supplier	Series	System	Instructional Bulletins
Avery Dennison	4930 Inks	1 Part Solvent	#8.40
Avery Dennison	UVTS Nazdar	UV	#8.38
Avery Dennison	OL-2000	Acrylic Overlay	#8.01, #8.10, #8.25
Avery Dennison	OL-1000	Anti-Graffiti	#8.01, #8.10
Matan	DTS	Thermal Transfer	#8.60
Avery Dennison	TrafficJet™ 1638 - 8 Color	Eco Solvent Inkjet*	#8.61

\* See Instructional Bulletin for overlay requirements.

#### Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
Ink Recommendations Guide	#8.55

### Substrates:

The application of Avery Dennison HIP Series sheeting is limited to properly prepared substrates which differ by product. For traffic products and W-6504, application is limited to properly prepared Aluminum. For products in the W-6100 line, application is limited to properly prepared plastic. For products in the W-6200 line, application is limited to properly prepared wood. Users are urged to carefully evaluate, under actual use conditions, any film application to other substrates. Failure of film caused by other substrates, materials, contamination, or improper surface preparation is not the responsibility of Avery Dennison. See Instruction Bulletin #8.01 for full details on substrate requirements.

#### DEFINITIONS

**Durability:** means that the Product in a finished graphic, panel or sign situated outdoors, subject to the limitations herein and Avery Dennison Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished sign, panel or graphic is ineffective for its identification when viewed under normal conditions from the intended viewing distance.

**Outdoor Durability:** is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic, panel or sign. In case the finished graphics, panel or sign is in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability may be reduced. Please see your local Avery Dennison representative for changes to warranties based on such localized conditions.

**Vertical Exposure:** means that the face of the finished graphic is  $\pm 10^\circ$  from vertical.

**Non-Vertical Exposure:** means that the face of the finished graphic is greater than  $10^\circ$  from vertical and greater than  $5^\circ$  from horizontal. Retroreflective films are not warranted for this exposure.

**Flat surfaces:** means a two dimensional flat surface without protruding objects.

**Weathering Effects:** Some degradation of Product performance over time is considered normal wear. Slight color fading, chalking, edge lifting, or slight reduction in gloss or reflectivity due to normal wear exposure and other natural weathering, environmental or other conditions or damage caused by tornadoes, hurricanes, wind, excessive ice buildup or extraordinary frozen particulate conditions, large hail stones or other acts of God, do not constitute a breach of warranty or give rise to any liability by Avery Dennison.

**Printing, Curing and Ink Defects:** Ink contaminations, failures or other defects, or other failures due to improper printing conditions or settings including, but not limited to, unsuitable color calibration, incorrect ICC color profile or incompatible printing, do not constitute a breach of warranty. Product failure caused by ink over-saturation, excessive or under curing, failure of ink to render desired colors on Product, or other treatment or processing errors are not warranted.

**Adhesion to Application Surfaces:** This warranty does not cover the Product if the application surface is not properly prepared; nor does the warranty cover the Product or damage to the substrate because the layers of the substrate separate due to a lower bond between those layers than the bond between the Product and the top layer of the substrate, or surfaces which subsequently crack, peel, outgas, or become damaged beneath the Product.

#### INDEPENDENT TESTING REQUIRED

All statements, technical information and recommendations about Avery Dennison products are based upon tests and information believed to be reliable but do not constitute a guarantee or warranty of any kind. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its intended and other purposes.

Avery Dennison and the logo are registered trademarks or trade names of Avery Dennison Corp. © 2011 All Rights Reserved.