



Inspired Brands.
Intelligent World.™

Avery Dennison Reflective Solutions





Contents

Introduction

Omni-Directional Advantage	1
----------------------------	---

Traffic 2

Prismatic Sheeting	2
Glass Bead Sheeting	3
Overlamine Film	4
Digital Imaging Materials	5
Screen Printing Inks	5

Work Zone 6

Prismatic Sheeting	6
Glass Beading	6

Backlit Signage 7

Internal Sign Illumination	7
----------------------------	---

Conspicuity & Fleet 8

Conspicuity for Trucks & Trailers	8
Conspicuity for Buses & Slow Moving Vehicles	9

Vehicle Registration 10

License Plate Media	10
Validation and Window Decal Media	11

Retroreflectivity Compliance 12



Avery Dennison makes highway and street signs brighter and safer with some of the most innovative technologies available in reflective sheeting today. Since 1924, we have been an industry leader, dedicated to growing and evolving to keep up with the ever-changing needs of a demanding market.

Safety Solutions.... Superior Peace of Mind.



Other brands of prismatic sheeting that are rotationally sensitive may exhibit uneven visual appearance. With Avery Dennison, you won't experience this problem.

Today, we remain one of the preferred suppliers to professional sign shops worldwide, serving the traffic and safety market with one of the industry's most comprehensive range of reflective sheeting and conspicuity tape.

Our products are all engineered with omni-directional performance allowing for maximum reflectivity from every angle. The benefit is clear – a full spectrum of colors and performance that meets or exceeds local specifications.

The Omni-Directional Advantage.

It's engineered into each of our reflective products, and it's only available from Avery Dennison.

Conventional signmaking methods are influenced by the rotational sensitivity of the sign sheeting. Material that is rotationally sensitive must be manufactured in a very specific, correctly oriented way to ensure consistent nighttime reflectivity and optimum sign design. This often results in wasted material and creative limitations.

Avery Dennison's Omni-Directional sheeting is not rotationally sensitive, so there are no special requirements for manufacturing or material mounting. Signmakers can place the material anywhere on the sign – in any direction – and still maintain and optimize uniform visual performance.

This unique advantage gives you the reflective performance that you expect and improves safety on your roadways with bright, easy to understand signage. It also delivers cost and time savings to converters, allowing them to maximize sheeting use – without sacrificing style.



Our wide selection ensures high value and safety advantages and that you'll always have the right product for any job.

Prismatic Sheeting

Avery Dennison® OmniCube™ takes full-cube retroreflective sheeting technology to a new level.

OmniCube full-cube prisms are 100% efficient – returning approximately 60% of available light back to the driver, unlike competitive prismatic sheeting that returns only 40%. Uniquely designed, OmniCube takes a broad array of full cubes with angles tailored to meet the specific needs of drivers in different vehicle types. The full cubes and angles are then precisely aligned in multiple orientations to deliver consistent performance. OmniCube's intelligent cube technology efficiently returns light to drivers of all vehicles, including heavy trucks, SUV's, automobiles with the newest headlight designs and motorcycles.

T-11000 OmniCube™ Series

OmniCube T-11000 is an Omni-Directional microprismatic film that incorporates tiles of full-cube 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.



Prismatic Sheeting cont.

T-9000 OmniView™ Series

Maximum Visual Performance, this durable micro-prismatic grade reflective sheeting is the ideal choice for all permanent traffic sign applications in urban and rural areas. It is designed to provide superior short, medium and long distance reflectivity.

T-7000 MVP Series

This durable micro-prismatic retroreflective material contains unique prismatic construction for high reflectivity.

T-6000 High Intensity Series

Offering exceptional value in a 10-year outdoor durable material, the T-6000 series provides brighter colors and higher reflectivity than glass bead sheetings. It is ideal for a variety of signmaking, traffic sign and work zone applications.

Avery Dennison prismatic films are also engineered to be computer cut using drum or flatbed plotters. In side by side tests, we have witness cutting speeds 8 to 10 times faster than our competitors – all while achieving a quality clean cut. We recommend the Graphtec FC8600 Series, be sure to specify the additional heavy duty rollers and blade cutter/holder.

Prismatic Sheeting

Product	Specs ASTM D-4956	Colors						Fluorescent Colors	
		White	Yellow	Blue	Green	Red	Brown	Fl Yellow	Fl Yellow-Green
OmniCube™	Type XI	T-11500	T-11501	T-11505	T-11507	T-11508	T-11509	T-11511	T-11513
OmniView™	Type IX	T-9500	T-9501	T-9505	T-9507	T-9508	T-9509	T-9511	T-9513
T-7500 MVP	Type VIII	T-7500	T-7501	T-7505	T-7507	T-7508	T-7509	T-7511	T-7513
T-6500	Type III/IV	T-6500	T-6501	T-6505	T-6507	T-6508	T-6509	–	–

Glass Bead Sheeting

T-1000-A Engineer Grade Series

This engineer grade retroreflective sheeting is a high quality, durable, enclosed lens material designed for many non-critical traffic signage and commercial applications. It offers exceptional value and meets applicable requirements for Type I retroreflective sheeting required in ASTM D 4956 standards.

M-0500-A Commercial Grade Series

The M-0500-A Series offers excellent value in commercial grade glass bead sheeting. It is a high quality, enclosed lens pressure sensitive retroreflective material that provides excellent value for non-specification applications where lower levels of retroreflectivity are adequate for visibility.

Glass Bead Sheeting

Product	Specs ASTM D-4956	Colors					
		White	Yellow	Blue	Green	Red	Brown
T-1000-A	Type I	T-1500-A	T-1501-A	T-1505-A	T-1507-A	T-1508-A	T-1509-A
M-0500-A	N/A	M-0500-A	M-0501-A	M-0505-A	M-0507-A	M-0508-A	M-0509-A



An easy to cut, weed, and apply solution to quickly produce a variety of sign types, often in short run production situations.

Overlamine Film

OL-2000 Transparent Overlay Series

OL-2000 Series films are designed for computer sign cutting and application on the surface of Avery Dennison T-series reflective sheetings. They are coated with a transparent pressure-sensitive adhesive and provide color formulations and resulting sign reflectivity that comply with ASTM D-4956 standards. And even though they are acrylic, these films are engineered to be both easy to cut, and easier and faster to weed than competitive acrylic films. OL-2000 films are an economical alternative to screen printing on small production runs.

OL-2000 Transparent Overlay Series

Face	Transparent
Adhesive	Permanent
Film Type	Acrylic
Durability	Same as retroreflective film it is applied to
Conversion	Flat Bed Sign-Cut, Drum Roller Sign-Cut, Steel Rule Sign-Cut

Product	Color
OL-2000	Clear
OL-2001	Yellow
OL-2003	Black
OL-2004	Orange
OL-2005	Blue
OL-2007	Green
OL-2008	Red
OL-2009	Brown



OL-1000 Premium Anti-Graffiti Overlay Film

This premium quality anti-graffiti overlay film is coated with a transparent pressure sensitive adhesive and acts as an effective barrier to damage caused by spray paint, lipstick, magic marker and stickers. The film allows easy cleaning with the use of mild solvents. It matches the durability of the underlying reflective material of the finished sign. Designed for application over finished traffic signs, OL-1000 can also be ordered with paper premask.

OL-1000 Premium Anti-Graffiti Overlay Film

Face	Transparent
Adhesive	Permanent
Liner	Friction Coated film
Durability	Same as retroreflective film it is applied to
Conversion	Flat Bed Sign-Cut, Drum Roller Sign-Cut, Steel Rule Sign-Cut



Digital Imaging Materials

TrafficJet™ InkJet Print System

TrafficJet™ is a complete digital printing system for the traffic safety and reflective sign producers as well as the municipalities wishing for an easy-to-manage in-house solution for a variety of signage. Avery Dennison is a true digital system provider, offering a complete, cost-effective, highly flexible digital printing solution with equipment, ink and reflective sheeting for work zone and all permanent signage. Please contact your Avery Dennison representative for complete system specifications and purchase options.



Benefits of the TrafficJet system include:

- Print on demand, short runs, long runs, variable message signs are easily printed.
- Eliminates the cost, footprint, and mess of screen printing and related management of hazardous solvent wastes.
- Ecosolvent inks are durable and cost-effective.
- Specially formulated spot colors meet traffic sign requirements for reflectivity, color, and durability.
- Overlay film required only for permanent signs.
- Prints on all prismatic series

Screen Printing Inks

These Nazdar solvent ink systems are designed for ease of use, with quick or slow dry options available. Known for their quality and durability, these inks will last the warranted life of the reflective sheeting when used as recommended. Available in transparent, opaque, and custom colors.

4930 Series Inks

A one-part solvent-based screen print ink for printing on all M-0500-A, T-1500-A, and all prismatic series sign sheeting.

7TS Series Inks

A one-part solvent-based screen print ink, only suitable for M-0500-A and T-1500-A series beaded sheetings.



Screen Printing Inks

Product	Durability	Colors								
		Stop Sign Red	Blue	Yellow	Green	Orange	Brown	Clear	Opaque Black	Custom
7TS Series Inks	7 Year	●	●	●	●	●	●	○	●	●
4930 Series Inks	Up to 12 years*	●	●	●	●	●	●	○	●	●
UVTS	Up to 10 years*	●	●	●	●	●	●	○	●	●

*Please refer to Product Data Sheets for complete details.

Work Zone

Choose Avery Dennison when conditions require temporary traffic control devices to warn drivers and keep workers safe. Our fluorescent work zone, reboundable, and pre-stripped barricade products provide optimum visibility under demanding conditions.



Fluorescent Orange Work Zone Signage

Fluorescent Orange is a bright, highly visible fluorescent color that provides daytime conspicuity from dawn to dusk. This color has become the standard in North America and other parts of the world for providing safer Work Zones.

Fluorescent Orange Work Zone

Product	Specs ASTM D-4956	Substrate
W-11514	Type XI	Aluminum/Wood
W-9514	Type IX	Aluminum/Wood
W-7514	Type VIII	Aluminum/Wood
W-7114	Type VIII	Plastic

Orange Work Zone

Product	Specs ASTM D-4956	Substrate
W-6504	Type III	Aluminum/Wood
W-1504-A	Type I	Aluminum/Wood

Barricade Applications

Pre-stripped barricade sheeting is supplied with alternating orange and white stripes at a 45-degree diagonal. Available in 4" and 6" wide stripes, and in Engineer, High Intensity Prismatic, and OmniCube series.



LEFT Pre-Stripped Barricade



RIGHT Pre-Stripped Barricade

Barrel Applications

Work Zone Reboundable sheeting is available in High Intensity Prismatic WR-6100 series, and Prismatic WR-7100 series which includes fluorescent orange. Reboundable sheeting is designed for high reflectivity, flexibility, and with abrasion resistance to provide superior performance in demanding work zones.

Product	Application	Specifications	Spacing			
Barricade		ASTM D-4956	4 in. LEFT	4 in. RIGHT	6 in. LEFT	6 in. RIGHT
W-11100	Plastic	Type XI	W-11142	W-11143	W-11144	W-11145
W-6200	Wood	Type III/IV	W-6242	W-6243	W-6244	W-6245
W-6100	Plastic	Type III/IV	W-6142	W-6143	W-6144	W-6145
W-1100	Plastic	Type I	W-1142	W-1143	W-1144	W-1145
Reboundable		ASTM D-4956	Color			
WR-6100	Plastic	Type III	White			
WR-6104	Plastic	Type III	Orange			
WR-7100	Plastic	See Product Literature	White			
WR-7114	Plastic	See Product Literature	Fluorescent Orange			

Internal Sign Illumination

Internal sign illumination is often critical in many traffic and safety applications, including airport runways, overhead street name signs, or emergency exit signs. When back-lit signs can mean the difference between life and death, Avery Dennison offers translucent retro-reflective sheeting that delivers high visibility and legibility, as well as optimal light transmission.



6600 Translucent Series

The 6600 Translucent Series is a family of prismatic pressure sensitive retroreflective sheeting that transmits uniformly diffused light when used in internally illuminated signs. These materials provide reflective backup protection in the event of internal lamp or power failure. Designed for use on airport runway signs, 6600 Translucent Series materials exceed FAA specification AC 150/5345-44J and are available with either front faced or backfaced adhesive.

Product Specifications

Product	Color Light Transmission	Adhesive
6620	White - Medium	Front Face
6621	Yellow - Medium	Front Face
6630	White - High	Front Face
6631	Yellow - High	Front Face
6630	White - High	Rear
6631	Yellow - High	Rear



Conspicuity & Fleet



Research has documented that vehicle conspicuity tape improves vehicle safety through accident avoidance and reduction in accident severity. Increased safety results in reduced liability payments and additional savings for your fleet.

V-5720 Conspicuity Tape

The original red and white stripe reflective contour tape developed for North America to improve nighttime vehicle recognition. V-5720 is a highly durable single layer construction offering easy repositionable application. V-5720 may be ordered in the following colors: red/white pattern (6" x 6" & 11" x 7"), solid red and solid white. It is available in the traditional 2" wide rolls as well as strips and kiss cut finishes. It is now offered in 10-year durability for new vehicles, as well as 5-year durability for replacement applications! In addition, customize your fleet's conspicuity tape with our custom logo options.



V-5720 Conspicuity Tape

Product	Durability	Applications	Specifications	Approval Mark	Colors		
					White	Red	Red & White
V-5720-10	10 years	Trucks and Trailers	FMVSS 108	DOT-C2	X	X	(6" x 6" & 11" x 7")
V-5720-5	5 years	Trucks and Trailers	FMVSS 108	DOT-C2	X	X	(6" x 6" & 11" x 7")

Conspicuity Tape for Buses & Slow Moving Vehicles

V-9700 Series Conspicuity Reflective Tape

V-9700 Series is designed for slow moving vehicles, such as school buses, farm vehicles and heavy equipment. It provides easy nighttime vehicle recognition and increased road safety using a high quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. The single layered construction does not require edge sealing. V-9700 tape meets a wide variety of applicable industry standards such as FMVSS, ASTM, and ANSI/SAE.

Delineator Tape for Railcar

V-9700-RR Series Conspicuity Tape

V-9700-RR Series is designed for railcars and locomotives, providing easy night-time detection and recognition. Like its V-9700 Series counterpart, it is a high quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. V-9700RR increases the visibility of your rolling stock. It is offered in both yellow and white and carries the required FRA-224 certification. Available in 4" wide rolls, as well as strips, and kiss cut finishes. V-9700RR comes with an aggressive adhesive for low temperature applications.

Delineator Marking Media

S-9700 Delineator Series

S-9700 Series offers the highest level of prismatic reflectivity for marking obstructions within or adjacent to the road, making them more distinguishable to drivers. Available in two color options – red and amber – S-9700 Series sheeting is ideal for distinguishing potential roadside hazards such as ramps, islands and other obstructions. It can also be used for guideposts, such as fire hydrants and snow plow markers.

Prismatic Sheeting and Tape



Product Specifications

Product	Durability	Application	Specifications	Approval Mark	Colors			
					White	Yellow	Red	Amber
V-9700	7 years	School buses	FMVSS 131 & 217 NTSP 2000	n/a	–	V-9701	–	–
		Slow moving vehicles, Agricultural equipment	ANSI/SAE S279 & S276 ASTM D-4956 Type V	n/a	V-9700	V-9700	V-9722	–
V-9700RR	10 years	Rail cars & locomotives	–	FRA-224	V-9700RR	V-9701RR	–	–
S-9700	7 years	Roadside hazard delineation	See Product Data Sheet	–	–	–	S-9722	S-9701

Vehicle Registration

Whether you are producing license plates, validation stickers or window decals, Avery Dennison's complete prismatic and glass bead reflective product line meets all worldwide specifications and offers the flexibility to print, emboss and even digitally image. Add the option of our unique Secure Mark™ technology, and you'll achieve an even higher level of license plate and validation security.



License Plate Media

L-6050 Series Retroreflective Sheeting

L-6050 Series retroreflective license plate sheeting is a premium quality prismatic material designed and engineered for the production of high quality embossed license plates. It incorporates a unique prism design to help prevent counterfeiting. Highly versatile, L-6050 Series sheeting can be printed through various methods, including digital thermal transfer, solvent and UV screen, or rollercoat technologies. This sheeting also meets Brazil resolutions 231, 241, and 372

L-3050 Series Retroreflective Beaded Sheeting

This enclosed lens retroreflective material is designed and engineered for embossed or flat license plates. L-3050 sheeting can also incorporate custom printing and optional security features that are critical to government requirements. It can be printed in a variety of ways, including digital thermal transfer, solvent and UV screen, or through rollercoat technologies. L-3050 Series sheeting also meets quality standards for ISO 7591 and LS-300C.

Vehicle Registration

Validation Decal Media

LV-0700 Series Reflective film

A premium quality, enclosed lens retro-reflective material. It is ideal for vehicle tag and sticker requirements where low temperature application is desired, such as license plate validation stickers. LV-0700 films are available in 10 standard colors plus custom colors. They also incorporate Avery Dennison Secure Mark™ technology to prevent counterfeiting

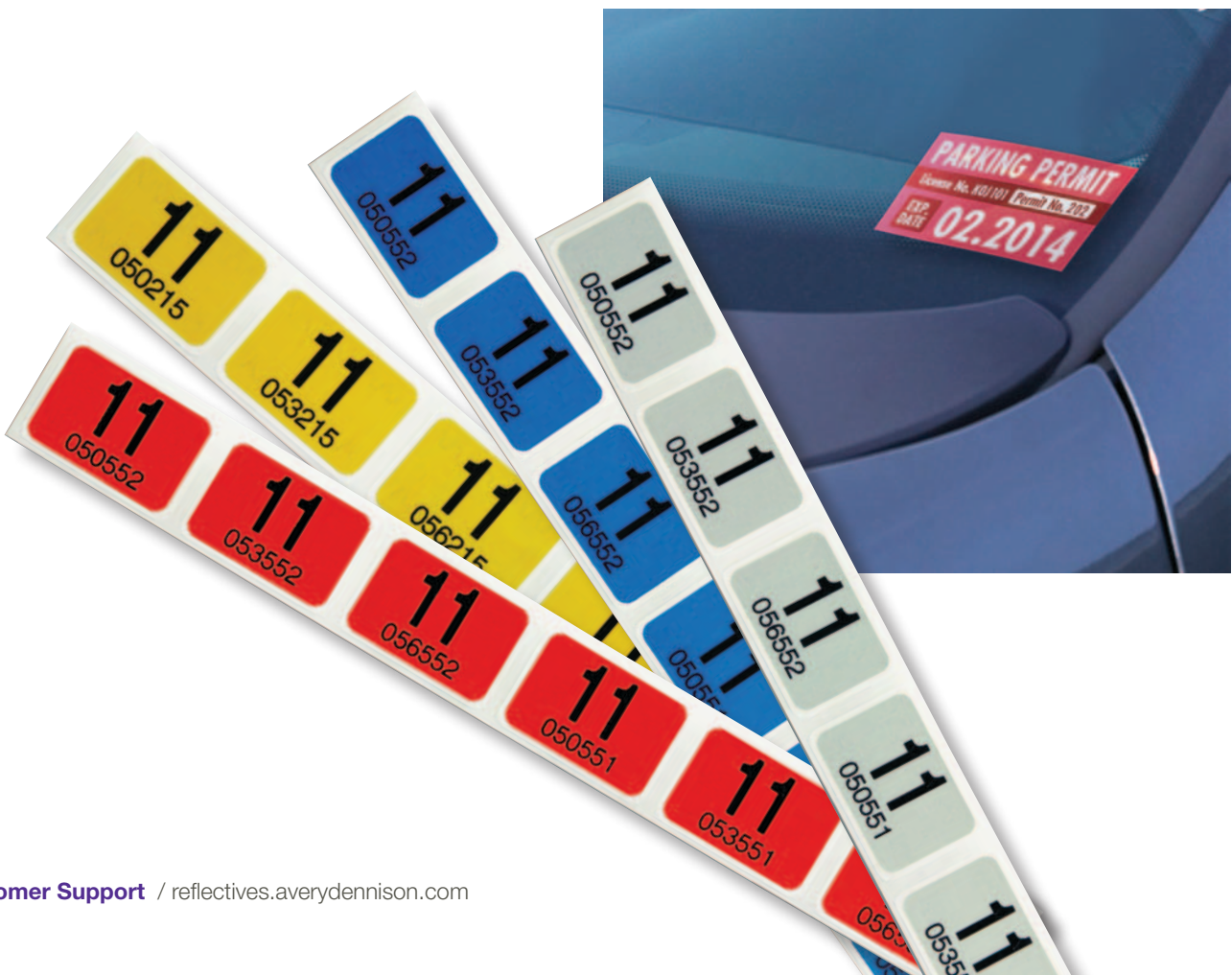
Window Decal Media

LW-0400 series window sticker film

Designed to be variable printed for use inside or outside the vehicle. Reflective permit stickers made from LW-0400 series films provide easy verification for authenticity. These films can be used with a variety of converting methods and are also available with Avery Dennison Secure Mark™ technology to prevent counterfeiting.

Product Specifications

Product		Application
License Plates	L-3050	Embossable standard issue license plates
	LP-3050/LP-0500	Reflective material for standard and digital surface printing; includes overlamine layer
	L-6050	Embossable prismatic license
	LF-1500	Front face license plates
Validation Decals	LV-0700	Stickers for annual registration can be applied to the license plate or directly on other crafts
Window Stickers	LW-1000	Stickers requiring exposed metallization layer for security
	LW-0400	Stickers requiring protective layer
	LW-0100	Stickers requiring a front face adhesive



Retroreflectivity Compliance

Ensure your signs are MUTCD compliant with Nighttime Visual Inspection Kits.

Calibration Sign Standards

In all required colors with retroreflectivity levels engineered to match the values specified in MUTCD Table 2A-3. For use by your maintenance personnel to easily calibrate their vision prior to conducting nighttime sign inspections. As they conduct the inspection, they mark signs as pass / fail / marginal on their inspection log. Marginal signs can be replaced, or subjected to additional evaluation using Comparison Panels.

Comparison Panel Standards

In all required colors with retroreflectivity levels engineered to match the values specified in MUTCD Table 2A-3. Easy-to-use during daytime or nighttime inspections, these panels replace the need to invest in costly portable reflectometers and their respective maintenance. Simply clip the comparison panels to the sign being evaluated and view from a distance of approximately 25 feet with the provided light source to reach a pass / fail conclusion.



Use of the visual assessment method using these kits is simple, effective, and fully compliant with FHWA recommendations for sign evaluation.

US Patent #8,205,994

Product Specifications

Product	Stock Item No.
Complete MRS Kit	990000
Calibration Signs Kit Only	990010
Comparison Panels Kit Only	990020
Replacement Calibrations Signs ¹	Call
Replacement Comparison Signs ¹	Call

¹Replacement panels available for sale to registered kit owners only.



Retroreflectivity Compliance

Complete MRS Kit:

Complete MRS Kit:

- 8 ea 24" x 24" x 0.063 Calibration Signs
- Ballistic nylon carrying case
- 12 ea 6" x 6" x 0.025" Comparison Panels
- Pelican case
- Spot light
- LED light
- Metal sign clamps
- Micro fiber cleaning cloth
- Laminated MUTCD chart
- Instructional Manual
- USB memory stick with kit registration link

Calibration Signs Kit:

- 8 ea 24" x 24" x 0.063 Calibration Signs
- Ballistic nylon carrying case
- Micro fiber cleaning cloth
- Laminated MUTCD chart
- Instructional Manual
- USB memory stick with kit registration link



For more information on Avery Dennison reflective products,
visit our website at **reflectives.averydennison.com**.



For information on warranty terms, exclusions and certain limitations that apply please see our website: **reflectives.averydennison.com**

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.



Reflective
Solutions

Avery Dennison Reflective Solutions

7542 North Natchez Ave.

Niles, IL 60714

877-214-0909

reflectives.averydennison.com