

Avery Dennison® L-6551 Yellow PTLP / OL-2000 Prismatic Truck License Plate Retroreflective Film

Issued: July 2013

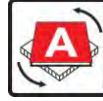
Avery Dennison® L-6551 Prismatic Truck License Plate Retroreflective Film (PTLP) is designed to meet the Vehicle Identification System defined by Brazil Resolution 370. It is a high-quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. Its unique microprismatic construction provides a high level of retroreflectivity.

When combined with OL-2000 after thermal transfer printing it fully complies with the Brazil Resolution.

L-6551 is an Omni-Directional microprismatic film that incorporates tiles of microprisms arranged in multiple orientations.



Performance:
Brazil Resolution 370
Type III – NBR 14644 - ABNT



Orientation: Omni-Directional



Durability: 10 year
Vertical Exposure only



Face: High-Gloss Acrylic Retroreflective Film with Microprisms



Adhesive: Permanent Pressure Sensitive



Liner: Polypropylene Film

Features:

- Brazil Resolution 370 compliance
- High Intensity Microprismatic Retroreflective Performance
- Resistant to cleaning solvents
- Uniform daytime and nighttime visual appearance
- OL-2000 is a high clarity product for use with Avery Dennison Reflective Sheeting

Conversion:

- Screen Printing
- Thermal Transfer Printing

Applications:

- Rigid clean flat truck panels
- Applied to aluminum for uneven truck surfaces

Product Availability:

L-6551	Yellow
OL-2000	Clear overlamine

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Retroreflectivity:

Table A:
Min. coefficients of retroreflection (R_A)¹ per ASTM D4956² Type III & IV

Observation Angle	Color	Entrance Angle	
		-4°	+30°
0.2°	Yellow	270	135
0.5°	Yellow	110	54

Table B:
Min. coefficients of retroreflection (R_A)¹ per E810

Color	Observation Angle	Entrance Angle
		1.5°
Yellow	-5°	<150
	+5°	
	-30°	
	+30°	
	-45°	
	+45°	

Colors and Specification Limits:

Table C: Daytime Color

Yellow		
1	x	0.498
	y	0.412
2	x	0.557
	y	0.442
3	x	0.479
	y	0.520
4	x	0.438
	y	.0472
Luminance	Min	24
	Max	45

L-6551 sheeting **meets** all requirements listed in **Table A** and **Table B**.

Chromaticity Coordinate Limits

L-6551 sheeting **meets** the current applicable daytime color requirements shown in **Table C**.

The four pairs of chromaticity coordinates in **Table C** 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 **Table C**.

R_A =
candelas per foot-candle per square foot (cd/ft²) OR
Candelas per lux per square meter (cd/lx/m²)

² Measured according to ASTM E810

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Characteristics:

<i>Property</i>	<i>Value</i>	<i>Instructional Bulletins</i>
Shelf-Life	1 year from date of purchase when stored at the following conditions; 18°-24°C (65°-75°F) and 50% ± 5% R.H.	#8.00
Typical film Caliper	L-6551: 457 – 483µ (18 – 19 mils) OL-2000: 100µ (4 mils)	NA
Min. Application Temperature	18° C (65° F)	#8.10
Service Temperature	-40°C to + 65°C (-10°F to +150°F)	#8.00
Screen Printing	Long term durability of screen printing in combination with L-6551 sheeting is warranted when used with approved inks and overlays. See Page 6.	#8.30 #8.55
Thermal Transfer Printing	Long term durability of Thermal Transfer Printing in combination with any L-6551 series sheeting is warranted. Refer to Instructional Bulletin	#8.60

WARRANTY

Avery Dennison L-6551 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.

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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. We encourage you to check our website periodically for updates.

Approved screen printing inks, overlays, thermal transfer ribbons:

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

Instructional Bulletins:

Film Care & Handling	#8.00
Substrate Requirements	#8.01
Application Techniques for PS Film	#8.10
Cutting Methods	#8.20
Screen Preparation	#8.30
Troubleshooting Printing & Processing	#8.34
UVTS Nazdar Inks	#8.38
4930 Series Inks	#8.40
Ink Recommendations Guide	#8.55
Matan Thermal Transfer Printing	#8.60

Substrates:

The application of Avery Dennison L-6551 sheeting is limited to properly prepared substrates. If applying directly to the truck, it must be clean, smooth, and flat. If not apply to aluminum first then affix to the truck. Users are urged to carefully evaluate, under actual use conditions, any film application substrates. Failure of film caused by 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

Product Data Sheet
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Reflective Solutions
7542 North Natchez Ave.
Niles, IL 60714

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.

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.

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.



www.reflectives.averydennison.com

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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° from vertical and greater than 5° 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.

If any court of competent jurisdiction or relevant government agency holds any provision of this warranty and limitation of liability to be illegal, void, invalid or unenforceable, whether in terms of any competition, legislation or otherwise, such provision shall be deleted and severable from this warranty and limitation of liability but deletion shall not affect the validity or enforceability of any other provisions hereof

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