

Avery Dennison® M-0500
Commercial Grade Reflective Sheeting
Pressure Sensitive Adhesive for Aluminum

Data Bulletin # M-0500
 Revised 10/2003

Description:

Avery Dennison® M-0500 Commercial Grade Reflective sheeting is a quality, enclosed lens retroreflective material. M-0500 is ideal for non-specification signage requirements such as off-road signage and parking lots.

Construction:

Face Film:	High gloss
Adhesive	Permanent pressure sensitive (Class 1)
Liner:	White Polyethelene Coated Paper StaFlat®

Photometric Performance:

Minimum Coefficient of Retroreflection (R_A) (cd / lx / m²)

Observation Angle	Entrance Angle	White	Yellow	Orange	Green	Red	Blue	Brown
0.2°	-4°	50	25	13	5	10	3.8	—
	30°	12	7	4	2	3	1	—
0.5°	-4°	15	10	6.5	3	5	2	—
	30	6	3	2.5	1	1	.8	—

Colors & Specification Limits (Daytime):

The M-0500 retroreflective Sheeting will meet the color specifications as shown below

Color	1		2		3		4		Luminance (Y%)	
	x	y	x	y	x	y	x	y	Min	Max
White	0.303	0.287	0.368	0.353	0.340	0.380	0.274	0.316	27	--
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472	15	45
Orange	0.550	0.360	0.630	0.370	0.581	0.418	0.516	0.394	14	30
Blue	0.144	0.030	0.244	0.202	0.190	0.247	0.066	0.208	3.0	9.0
Green	0.030	0.380	0.166	0.346	0.286	0.428	0.201	0.776	2.5	12
Red	0.613	0.297	0.708	0.292	0.636	0.364	0.558	0.352	2.0	10
Brown	0.430	0.340	0.430	0.390	0.550	0.450	0.610	0.390	4.0	9.0

The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant C.

Other Specifications

Consult your Avery Dennison Representative for information concerning additional world-wide specifications.

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Physical Properties:

Outdoor Durability	Avery Dennison M-0500 sheeting is warranted for 2 years when properly processed and applied.
Minimum Surface & Ambient Air Application Temperature	40°F (4°C) when applied with a squeeze roll applicator
Application Surface	Flat surfaces only. Not recommended for unpainted stainless steel. Always pretest your specific substrate prior to actual application. Note: Wet method of application is not recommended for Avery Dennison M-0500 reflective films
Service Temperature Range	-40°F to 180°F (-40°C to 82°C)
Typical Film Caliper (w/adhesive)	3.5 to 4.5 mils (89 µm to 114 µm)
Shelf Life	One year when stored at the following temperature and conditions 68° - 77°F (20° - 25°C) and 50% ± 5%± R.H.
Other Tests:	M-0500 meets all other requirements set forth in ASTM D 4956 including Shrinkage, Flexibility, Liner removal, Adhesion, Impact resistance, Specular gloss and Outdoor weathering.

Application & Conversion Information:

The following Avery Dennison literature will provide complete information to the user for proper application, storage, and other requirements and is available from your Avery Dennison representative, from the Avery Dennison web-site www.reflectives.averydennison.com, or on request:

Approved screen printing inks:

Ink Supplier	Ink Series	Ink System
Maribu	PU	Solvent
Visprox	2000	Solvent
Ink Dezyne	GE	Solvent

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Instructional Bulletins:	
Storage, Handling & Cleaning	#8.00
Substrate Requirements	#8.01
Contractor;s Guide for Storage	#8.04
Application of PS Sheeting	#8.10
Cutting Methods	#8.20
Computer Sign Cutting	#8.25
Screen Preparation	#8.30
Troubleshooting Printing	#8.34

Color Availability:	
M-0500	White
M-0501	Yellow
M-0504	Orange
M-0505	Blue
M-0507	Green
M-0508	Red
M-0509	Brown

Warranty:

WARRANTY: All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. 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.

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M-0500 is protected by one or more of the following US patents: 5,514,441; 6,054,208; 6,350,036