

## T-7513 SERIES

Avery Dennison® T-7513  
Fluorescent Yellow-Green  
Prismatic Sheeting is  
engineered for the rugged  
outdoor requirements  
of permanent road signs.  
It is the perfect sheeting  
material for such signage  
applications as School Zones  
and Crosswalks.



## FLUORESCENT YELLOW-GREEN PRISMATIC SHEETING



### **24-Hour Visibility**

Avery Dennison® T-7513 combines the power of microprismatic reflectivity with a durable fluorescent yellow-green color. This combination offers the highest levels of visibility around the clock. The fluorescent color creates exceptionally bright signs during daylight hours, especially at twilight and dawn. At nighttime, the microprismatic reflectivity provides the brightest levels of retroreflection available for improved performance over traditional glass-beaded materials.

### **Exceptional Fluorescent Light Stability**

T-7513 Fluorescent Yellow-Green offers exceptional UV-durability. Other fluorescent products rely upon UV-light absorbing additives to protect the fluorescent colorants. Unfortunately, these additives eventually breakdown or migrate from the system leaving the fluorescent color vulnerable to the harmful effects of UV-light. Instead of relying upon UV-additives, Avery Dennison has built the UV-absorbing properties into the sheeting itself.

There is nothing to break down or migrate from the product. In fact, the polymeric system in which the fluorescent colorants are dispersed is a natural UV-absorber. Thus, T-7513 Fluorescent Yellow-Green provides outstanding light-stability for longer lasting fluorescent road signs.

### **Brilliant Fluorescent Color**

T-7513 offers a vibrant fluorescent yellow-green color. This unique color provides outstanding contrast against busy backgrounds for improved daytime visibility at potentially dangerous intersections and crosswalks.

### **Ordering Information**

For availability and specifications on T-7513 Fluorescent Yellow-Green, contact your Avery Dennison representative, or call 1-800-327-5917

*Patents Pending in the United States and Worldwide.*

# FLUORESCENT YELLOW-GREEN PRISMATIC SHEETING

## DAYTIME FLUORESCENCE

Sheetings get their color by absorbing some wavelengths of light and emitting or reflecting other wavelengths of light. For non-fluorescent sheetings, the absorbed light is lost. For fluorescent sheetings, some of that absorbed light becomes additional emitted light. This is what produces the exceptionally bright colors of fluorescence. The brightness advantage is especially pronounced at twilight and dawn.

### Daytime Color Box and Total Luminance Factor

Daytime Color <sup>a</sup>	x	y	Total Daytime Luminance Factor (Y%) <sup>b</sup>	Initial Y% for Avery Dennison® T-7513
Fluorescent Yellow-Green	0.387	0.610	> 0.70 × Y <sub>M</sub>	90 +/- 5.0
	0.369	0.546		
	0.428	0.496		
	0.460	0.540		

a. The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

b. Y<sub>M</sub>, the MacAdam limit luminance factor, is defined as the maximum Y producible by any imaginable non-fluorescent object (i.e. sheeting). For each chromaticity, in each illuminant, there is a unique optimal color having this maximum Y. To ensure the brilliant appearance of the fluorescent color exists, the total luminance factor (Y%) must remain above 70% of the MacAdam limit, Y<sub>M</sub>. For a detailed discussion on MacAdam's limits and the calculation thereof, refer to Technical Bulletin 8.50.

## NIGHTTIME COLOR

By nature, fluorescence is not a nighttime phenomenon and does not contribute to the color of sheeting at night. Instead, nighttime color is governed almost entirely by retroreflection. At night, T-7513 Fluorescent Yellow-Green Sheeting reflects a vibrant yellow color.

### Nighttime Color Box

Nighttime Color <sup>c</sup>	x	y
Fluorescent Yellow-Green	0.590	0.410
	0.550	0.410
	0.470	0.490
	0.480	0.520

c. The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant A with beta<sub>1</sub> = 5°, beta<sub>2</sub> = 0°, and rotational angle (epsilon) = 0°.

## RETROREFLECTIVITY TABLE

### Minimum Coefficient of Retroreflection (R<sub>A</sub>) (cd/lx/m<sup>2</sup>)

Observation Angle	Entrance Angle	Fluorescent Yellow-Green
0.1°	-4°	840
	30°	340
0.2°	-4°	480
	30°	240
0.5°	-4°	235
	30°	110

Values are mean of test results with ε = 0° and ε = 90°

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Avery Dennison is ISO 9001 certified for the design and manufacture of retroreflective films

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