

# DECLARATION OF PERFORMANCE

Construction Products Regulation 305/2011

No. 7501-1610

## Prismatic Retroreflective Sheeting:

- T-7500B Series
- T-7500B Series with OL-2000 Transparent EC Film
- T-7500B Series with 4930 Screen Ink
- T-7500B Series with UVTS Screen Ink
- T-7500B Series with 3801 Traffic Film Black
- T-7500B Series with TrafficJet Ink & Clear Overlay



T-7500B Series is a high-quality, 10-year durable, microprismatic retroreflective material with a pressure sensitive adhesive. This product is intended for use on permanent or temporary highway safety devices that require robust Class 3 retroreflective performance.



Manufactured by: Avery Dennison, Reflective Solutions

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Avery Dennison performed factory product control and product sampling per assessment and verification of constancy of performance under System 1. Silniční vývoj - ZDZ spol. s r. o. Notified Body 1388 performed initial type testing, inspection of manufacturing facilities and factory products controls under system 1. Tzus, 060-045345 issued **ETA 15/0888** dated 18/09/2017 & **ETA 18/0544** dated 15/10/2108.

Essential Characteristics		Performance	Assessment Document
Daylight Chromaticity		Per Table 3	EAD 12000-01-0106, September 2016
Luminance Factor		Per Table 3	
Coefficient of retro-reflection, Rotational Symmetry		Per Tables 4 & 5, Rotational Variation < 10%	
Impact Resistance		No Effect	
Visibility after Weathering, Natural & Accelerated Artificial	Retroreflection	80% of Initial Requirement	
	Chromaticity & Luminance Factor	Per Table 2 Below	
Adhesion		Peel < 50mm	

The performance of T-7500B Series is in conformance with declarations herein when evaluated per EAD 120001-01-0106. This declaration of performance is issued for performance clarity under the sole discretion of Avery Dennison.

Signed for on behalf of Avery Dennison by: Lara Pearson, Quality Manager

*Lara Pearson*

Date: 17April, 2020, Illinois, USA

Table 2: Daytime Chromaticity and Luminance Factors<sup>A</sup> CR1

Colour		Colour Box Coordinates				Luminance Factor $\beta$
		1	2	3	4	
White	x	0,355	0,305	0,285	0,335	$\geq 0,27$
	y	0,355	0,305	0,325	0,375	
Yellow	x	0,545	0,487	0,427	0,465	$\geq 0,16$
	y	0,454	0,423	0,483	0,534	
Red	x	0,735	0,674	0,569	0,655	$\geq 0,03$
	y	0,265	0,236	0,341	0,345	
Orange	x	0,631	0,560	0,506	0,570	$\geq 0,14$
	y	0,369	0,360	0,404	0,429	
Green	x	0,007	0,248	0,177	0,026	$\geq 0,03$
	y	0,703	0,409	0,362	0,399	
Green 2 (Worboy Green)	x	0,313	0,313	0,248	0,127	$0,01 \leq \beta \leq 0,07$
	y	0,682	0,453	0,409	0,557	
Brown	x	0,455	0,523	0,558	0,479	$0,01 \leq \beta \leq 0,09$
	y	0,397	0,429	0,394	0,373	
Blue	x	0,078	0,150	0,210	0,137	$\geq 0,01$
	y	0,171	0,220	0,160	0,038	
Grey	x	0,355	0,305	0,285	0,335	$0,11 \leq \beta \leq 0,18$
	y	0,355	0,305	0,325	0,375	
Fluorescent Yellow	x	0,521	0,557	0,479	0,454	$\geq 0,38$
	y	0,424	0,442	0,520	0,491	
Flourescent Orange	x	0,595	0,645	0,570	0,531	$\geq 0,20$
	y	0,351	0,355	0,429	0,414	
Fluorescent Yellow/Green	x	0,387	0,460	0,438	0,376	$\geq 0,50$
	y	0,610	0,540	0,508	0,568	
Black	x	0,385	0,275	0,235	0,345	$\leq 0,03$
	y	0,355	0,250	0,290	0,395	

Notes: A – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120001-01-0106, Section 2.2.1.

Table 3: Daytime Chromaticity and Luminance Factors<sup>A</sup> CR2

Colour		Colour Box Coordinates				Luminance Factor $\beta$
		1	2	3	4	
White	x	0,305	0,335	0,325	0,295	$\geq 0,27$
	y	0,315	0,345	0,355	0,325	
Yellow	x	0,494	0,470	0,513	0,545	$\geq 0,16$
	y	0,505	0,480	0,437	0,454	
Red	x	0,735	0,700	0,610	0,660	$\geq 0,03$
	y	0,265	0,250	0,340	0,340	
Orange	x	0,631	0,560	0,506	0,570	$\geq 0,14$
	y	0,369	0,360	0,404	0,429	
Green	x	0,110	0,170	0,170	0,110	$\geq 0,03$
	y	0,415	0,415	0,500	0,500	
Green 2	x	0,313	0,313	0,248	0,127	$0,01 \leq \beta \leq 0,07$
	y	0,682	0,453	0,409	0,557	
Brown	x	0,455	0,523	0,479	0,558	$0,03 \leq \beta \leq 0,09$
	y	0,397	0,429	0,373	0,394	
Blue	x	0,130	0,160	0,160	0,130	$\geq 0,01$
	y	0,090	0,090	0,140	0,140	
Black	x	0,385	0,300	0,260	0,345	$\leq 0,03$
	y	0,355	0,270	0,310	0,395	
Fluorescent Yellow	x	0,521	0,557	0,479	0,454	$\geq 0,38$
	y	0,424	0,442	0,520	0,491	
Fluorescent Orange	x	0,595	0,645	0,570	0,531	$\geq 0,20$
	y	0,351	0,355	0,429	0,414	
Fluorescent Yellow-Green	x	0,387	0,460	0,438	0,376	$\geq 0,60$
	y	0,610	0,540	0,508	0,568	

Notes: <sup>A</sup> – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120001-01-0106, Section 2.2.1.

Table 4: Coefficients of Retroreflection<sup>1</sup>, R<sub>A</sub> (cd/lux/m<sup>2</sup>)  
(Includes Spain 3ZB & BEL R3B)

Entrance Angle ( $\beta_1$ , $\beta_2=0^\circ$ )	Observation Angle ( $\alpha$ )	R <sub>A</sub>						
		White	Yellow	Green	Red	Blue	Fluorescent Yellow-Green	Fluorescent Yellow
5°	0.2°	-	-	-	-	-	375	-
30°		-	-	-	-	-	200	-
40°		-	-	-	-	-	36	-
5°	0.33°	300	210	30	60	19	270	195
15°		240	168	24	48	16	-	-
30°		165	115	17	33	11	140	110
40°		-	-	-	-	-	24	20
5°	0.5°	250	175	25	50	16	-	-
15°		150	105	15	30	10	-	-
30°		100	70	10	20	6	-	-
5°	1.0°	35	24	3.5	7	2.5	70	23
15°		25	17	2.5	5	1.5	-	-
30°		15	10	1.5	3	1	43	13
40°		-	-	-	-	-	9	2

Notes: 1 – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120001-01-0106, Section 2.2.3  $\epsilon=0$  only.

Table 5: Coefficients of Retroreflection<sup>1</sup>, R<sub>A</sub> (cd/lux/m<sup>2</sup>)  
(Includes DIN 3B, R3B-UK & Czech Rep RA3)

Entrance Angle ( $\beta_1$ , $\beta_2=0^\circ$ )	Obs Angle ( $\alpha$ )	R <sub>A</sub>											
		White	Yellow	Orange	Green	Red	Blue	Brown	Worboy Green	FL Yell-Grn	FL Yellow	FL Orange	Grey
5°	0.33°	300	195	150	30	60	19	9	24	240	195	90	150
20°		240	155	120	24	48	16	7.2	19	190	155	72	120
30°		165	110	83	17	33	11	5	13	130	110	49	82
40°		30	20	15	3	6	2	-	2.4	24	20	9	15
5°	1.0°	35	23	18	3.5	7	2.5	1.1	2.8	28	23	10	17
20°		30	20	15	3	6	2	-	2.4	24	20	9	15
30°		20	13	10	2	4	1.5	-	1.6	16	13	6	10
40°		3.5	2	2	0	1	0	-	-	2.5	2	1	1.8
5°	1.5°	15	10	7.5	1.5	3	1	-	1.2	12	10	4	7.5
20°		13	8	6.5	1	2.5	0	-	1	10	8	3	6.5
30°		9	6	4.5	0	2	0	-	-	7	6	2	4.5
40°		1.5	1	1	0	0	0	-	-	1	1	-	-

Notes: 1 – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120001-01-0106, Section 2.2.3  $\epsilon=0$  only.

Table 6: Specific Signing Combination Performance Declarations

Signing Component	Product Name	Colors and Product Number	Declared Retroreflective Detail
Native Sheeting	T-7500B Series	T-7500B White T-7501B Yellow T-7505B Blue T-7507B Green T-7508B Red T-7511B Fluorescent Yellow T-7513B Fluorescent Yellow-Green	Per Tables 4 & 5
Electronic Cuttable Overlay <sup>#</sup>	OL-2000 EC Film & 3801 Black	OL-1000/2000 Clear OL-1000/2000 Clear applied to T-7501B Yellow OL-2001 Yellow <sup>a</sup> OL-2005 Blue, <sup>a</sup> OL-2007 Green <sup>a</sup> OL-2008 Red <sup>a</sup> OL-2008 Red applied to T-7501B Yellow <sup>+</sup> OL-2009 Brown <sup>a</sup> 3801 Black <sup>^</sup>	70% of Tables 4 & 5
^Standard Avery Dennison product code is 801, the prefix 3(801) denotes special watermark print for Germany only			
Solvent Screen Ink <sup>#</sup>	4930 Series	Blue <sup>*,a</sup> Red* Red onto T-7501B Yellow <sup>+</sup> Black	70% of Tables 4 & 5
UV Screen Ink <sup>#</sup>	UVTS with UV Clearcoat	Blue <sup>a</sup> Red Red onto T-7501B Yellow <sup>+</sup> Black	70% of Tables 4 & 5
Digital Printing <sup>#</sup>	TrafficJet with OL-1000 or OL-2000 Clear	Yellow <sup>a</sup> Blue <sup>a</sup> Green <sup>a</sup> Red Red onto T-7501B Yellow <sup>+</sup> Worboy Green <sup>a</sup> Brown <sup>a</sup> Grey Black Black onto T-7501B Yellow	70% of Tables 4 & 5

Notes: <sup>#</sup> - Declared performance for components assumes application to white native sheeting unless otherwise noted.

<sup>a</sup> - Declared performance is 100% of Table 5 values processed per German requirements.

<sup>+</sup> - Declared performance is 50% of red values stated in Tables 4 & 5.