

DECLARATION OF PERFORMANCE

No. 6000A-1704

High Intensity Prismatic Retroreflective Sheeting:

T6500A HIP Series

T6500A HIP Series with 4930 Screen Ink

T6000A HIP Series is a high-quality, 10-year durable, microprismatic retroreflective material with a pressure sensitive adhesive. This series is not intended for use with TrafficJet™ digital printing system. This product is intended for use on permanent or temporary highway safety devices that require robust Class 2 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 17/0240** dated 02/02/2018.

Essential Characteristics		Performance	Assessment Document
Daylight Chromaticity		Per Table 3	EAD 120006-01-0106, September 2016
Luminance Factor		Per Table 3	
Coefficient of retro-reflection, Rotational Symmetry		Per Tables 4 & 5, Variation < 10%	
Impact Resistance		No Effect	
Visibility after Weathering, Natural & Accelerated Artificial	Retroreflection	80% of Initial Requirement	
	Chromaticity & Luminance Factor	Per Table 2	
Adhesion		Peel < 50 mm	

The performance of T6500A HIP Series is in conformance with declarations herein when evaluated per EAD 120006-01-106. 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 ^ACR1

Colour		Colour Box Coordinates				Luminance Factor β
		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	
Green	x	0,007	0,248	0,177	0,026	$\geq 0,03$
	y	0,703	0,409	0,362	0,399	
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	
Black	x	0,385	0,300	0,260	0,345	$\leq 0,03$
	y	0,355	0,270	0,310	0,395	

Notes: ^A – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120006 – 01 – 0106, Section 2.2.1.

Table 3: Daytime Chromaticity and Luminance Factors^A CR2

Colour		Colour Box Coordinates				Luminance Factor β
		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	
Green	x	0,110	0,170	0,170	0,110	$\geq 0,03$
	y	0,415	0,415	0,500	0,500	
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	

Notes: ^A – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EN 12899-1:2007, Section 4.1.1.3.

Table 4: Coefficients of Retroreflection¹, R_A (cd/lux/m²)

Entrance Angle (β_1 , $\beta_2=0^\circ$)	Observation Angle (α)	Color					
		White	Yellow	Green	Red	Blue	Brown
5°	0.2°	360	270	50	65	30	18
30°		170	135	25	30	14	8.5
5°	0.33°	180	120	21	25	14	8
30°		100	70	12	14	8	5
5°	0.5°	150	110	21	27	13	7.5
30°		72	54	10	13	6	3.5
5°	1.0°	35	26	4	5.2	2	1
30°		20	15	2	3	1	0.6

Notes: ¹ – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120006-01-0106, Section 2.2.3 with averaging of $\epsilon=0^\circ$ and 90°

Table 5: Coefficients of Retroreflection², R_A (cd/lux/m²)
(Includes RA2/R2 Requirements)

Entrance Angle (β_1 , $\beta_2=0^\circ$)	Observation Angle (α)	Color					
		White	Yellow	Green	Red	Blue	Brown
5°	0.2°	250	170	45	45	20	12
30°		150	100	25	25	11	8.5
40°		110	70	12	15	8	5
5°	0.33°	180	120	21	25	14	8
30°		100	70	12	14	8	5
40°		95	60	11	13	7	3
5°	2.0°	5	3	0.5	1	0.2	0.2
30°		2.5	1.5	0.3	0.4	-	-
40°		1.5	1	0.2	0.3	-	-

Notes: ² – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120006-01-0106, Section 2.2.3 at $\epsilon=0^\circ$ only.

Table 6: Component Performance Detail

Signing Component	Product and Component Names	Product Combination, Color and Number	Detailed Retroreflective Performance
Native Sheeting	T6500A Series	T6500A White T6501A Yellow T6505A Blue T6507A Green T6508A Red	Per Tables 4 & 5
Solvent Screen Ink [#]	4930 Series	Yellow ^a Blue Green Red Brown with Clear coat Red onto Yellow T6501A ⁺ Black Black onto Yellow T6501A	70% of Tables 4 100% of Tables 5

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

^a – Avery Dennison recommends 15% thinning of the 4930 Yellow ink to meet 100% requirement.

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