

DECLARATION OF PERFORMANCE

Construction Products Regulation 305/2011

No. 11000-1608

Prismatic Grade Retroreflective Sheeting:

OmniCube T-11500 Series
OmniCube T-11500 Series with OL-2000 Transparent EC Film
OmniCube T-11500 Series with 4930 Screen Ink
OmniCube T-11500 Series with 3801 Traffic Film Black
OmniCube T-11500 Series with TrafficJet Ink & Clear Overlay



OmniCube Series is a high-quality, 12-year durable, Full Cube, 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 15/0887** dated 25/10/2017 & **ETA 18/0544** dated 15/10/2018.

Essential Characteristics		Performance	Assessment Document
Daylight Chromaticity		Per Table 3	EAD 120001-01-0106, 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 OmniCube 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^A CR1

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	
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^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	
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: ^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 4: Coefficients of Retroreflection¹, R_A (cd/lux/m²)
(Includes ASTM 4956 Type XI and R3C-UK)

Entrance Angle (β ₁ , β ₂ =0°)	Observation Angle (α)	R _A								
		White	Yellow	Green	Red	Blue	Brown	Fluorescent Yellow-Green	Fluorescent Orange	Fluorescent Yellow
5°	0.2°	580	435	58	87	26	17	460	175	350
30°		220	165	22	33	10	7	180	66	130
5°	0.33°	300	250	35	75	17	10	270	90	180
30°		140	128	18	30	7	5	120	42	90
5°	0.5°	420	315	42	63	19	13	340	125	250
30°		150	110	15	23	7	5	120	45	90
5°	1.0°	120	90	12	18	5	4	96	36	72
30°		45	34	5	7	2	1	36	14	27

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 averaging ε=0° and 90° or 0°.

Table 5: Coefficients of Retroreflection², R_A (cd/lux/m²)
(Includes Belgium 3B, Spain 3ZC, Czech Rep RA3 & Slovenia RA3 Requirements)

Entrance Angle (β ₁ , β ₂ =0°)	Observation Angle (α)	R _A						
		White	Yellow	Green	Red	Blue	Fluorescent Yellow-Green	Fluorescent Yellow
5°	0.2°	430	350	45	110	25	375	350
15°		350	270	35	90	20	-	-
30°		235	190	24	60	11	200	130
40°		55	40	7	12	3	36	-
5°	0.33°	300	250	35	75	17	270	-
15°		250	200	25	65	15	-	-
30°		150	130	18	35	7	140	-
40°		30	25	4	7	2	24	-
5°	1.0°	80	65	10	20	5	70	25
15°		60	45	7	16	3.5	-	20
30°		50	40	5	13	2.5	43	13
40°		15	13	2	5	1	9	7
5°	1.5°	15	10	1.5	3	1	-	10
15°		13	9	1	2.5	0.5	-	9
30°		10	7	1	2	0.5	-	7
40°		5	3	0.5	1	-	-	3

Notes: 2 – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EAD 120001-01-0106, Section 2.2.3 ε=0° only.

Table 6: Specific Signing Combination Performance Declarations

Signing Component	Product Name	Colors and Product Number	Declared Retroreflective Detail
Native Sheeting	T-11500 Series	T-11500 White T-11501 Yellow T-11505 Blue T-11507 Green T-11508 Red T-11511 & T-11111 Fluorescent Yellow T-11513 Fluorescent Yellow-Green	Per Tables 4 & 5
Electronic Cuttable Overlay [#]	OL-1000 OL-2000 EC Film & 3801 Black	OL-1000/2000 Clear OL-2005 Blue OL-2007 Green OL-2008 Red OL-2008 Red applied to T-11501 Yellow 3801 Black [^]	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 [#]	4930 Series	Blue Red Black	70% of Tables 4 & 5
Digital Printing [#]	TrafficJet with OL-1000 or OL-2000 Clear	Yellow Blue Green Red Red onto T-11501 Yellow Brown Worboy Green Grey Black Black onto T-11501 Yellow	70% of Tables 4 & 5

Notes: [#] - Declared performance for components assumes application to white native sheeting unless otherwise noted.
⁺ - Declared performance is 50% of red values stated in Tables 4 & 5.