

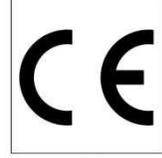
DECLARATION OF PERFORMANCE

Construction Products Regulation 305/2011

No. 1500-1609

Engineering Grade Retroreflective Sheeting:

T-1500 Series
T-1500 Series with OL-2000 Transparent EC Film
T-1500 Series with 4930 Screen Ink
T-1500 Series with UVTS Screen Ink
T-1500 Series with 3801 Black Opaque Film
T-1500 Series with TrafficJet Ecosolvent Ink & Clear Overlay
T-1500 Series with TrafficJet UV Ink & Clear Overlay
T-1500 Series with TrafficJet Xpress UV Ink & Clear Overlay



T-1500 EG Series, in conjunction with the components listed, is a high-quality, 7-year durable, beaded retroreflective material with a pressure sensitive adhesive. This product is intended for use on permanent or temporary highway safety devices that require Class 1 retroreflective performance.



Manufactured by: Avery Dennison, Reflective Solutions

Willem Einthovenstraat 11, 2342 BH
Oegstgeest, The Netherlands

902 Feehanville Rd.
Mt. Prospect, IL 60056 USA

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 and issued No.1388-CPR-9.2/2024.

Essential Characteristics		Performance	Assessment Document
Daylight Chromaticity		CR1/2	EN 12899-1:2007
Luminance Factor		CR1/2	
Coefficient of retro-reflection		RA1	
Impact Resistance		No Effect	
Visibility after Weathering, Natural & Accelerated Artificial	Retroreflection	80% of Initial Requirement	
	Chromaticity & Luminance Factor	Per Table 2 Below	

The performance of T-1500 EG Series is in conformance with declarations herein when evaluated per EN 12899-1:2007. This declaration of performance is issued for performance clarity under the sole discretion of Avery Dennison.

Signed for on behalf of Avery Dennison by: Erika Shang, Quality Manager

Date: 22 Jan, 2025, 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	$\geq 0,35$
	y	0,355	0,305	0,325	0,375	
Yellow	x	0,522	0,470	0,427	0,465	$\geq 0,27$
	y	0,477	0,440	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	0,610	0,535	0,506	0,570	$\geq 0,17$
	y	0,390	0,375	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	
Dark 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	0,479	0,558	$0,03 \leq \beta \leq 0,09$
	y	0,397	0,429	0,373	0,394	
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	
Grey	x	0,350	0,300	0,285	0,335	$0,12 \leq \beta \leq 0,18$
	y	0,360	0,310	0,325	0,375	

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 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	$\geq 0,35$
	y	0,315	0,345	0,355	0,325	
Yellow	x	0,494	0,470	0,513	0,545	$\geq 0,27$
	y	0,505	0,480	0,437	0,454	
Red	x	0,735	0,700	0,610	0,660	$\geq 0,05$
	y	0,265	0,250	0,340	0,340	
Orange	x	0,631	0,560	0,506	0,570	$\geq 0,17$
	y	0,369	0,360	0,404	0,429	
Green	x	0,110	0,150	0,150	0,110	$\geq 0,04$
	y	0,415	0,415	0,455	0,455	
Dark Green	x	0,190	0,190	0,230	0,230	$0,01 \leq \beta \leq 0,07$
	y	0,580	0,520	0,580	0,520	
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	0,086	0,086	0,120	0,120	
Black	x	0,385	0,300	0,260	0,345	$\leq 0,03$
	y	0,355	0,270	0,310	0,395	
Grey	x	0,305	0,335	0,325	0,295	$0,12 \leq \beta \leq 0,18$
	y	0,315	0,345	0,355	0,325	

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, Class RA1

Entrance Angle (β_1 , $\beta_2=0^\circ$)	Observation Angle (α)	R_A						
		White	Yellow	Orange	Green	Red	Blue	Brown
5°	0.2°	70	50	25	9	14.5	4	1
30°		30	22	10	3.5	6	1.7	0.3
40°		10	7	2.2	1.5	2	0.5	-
5°	0.33°	50	35	20	7	10	2	0.6
30°		24	16	8	3	4	1	0.2
40°		9	6	2.2	1.2	1.8	-	-
5°	2.0°	5	3	1.2	0.5	1	-	-
30°		2.5	1.5	0.5	0.3	0.5	-	-
40°		1.5	1	-	0.2	0.5	-	-

Notes: 1 – When material is sampled, processed and tested per Avery Dennison Product Data Bulletins, Instructional Bulletins, and EN 12899-1:2007, Section 4.1.1.4.

Table 5: Specific Signing Combination Performance Declarations

Signing Component	Product Name	Colors and Product Number	Declared Retroreflective Detail
Native Sheeting	T-1500 Series	T-1500A* & T-1500D White* & T-1500B White T-1501A* & T-1501D Yellow* T-1505A* Blue^ T-1507A* Green T-1508A* Red T-1509A* Brown	Per Table 2/3 100% Table 4
Electronic Cuttable Overlay#	OL-1000 OL-2000 EC Film & 3801 Black	T-1500B + OL1000 OL-2000 & OL1000 Clear applied to T-1500D OL1000 Clear applied to T-1501D 3801 Black	Per Table 2/3 70% of Table 4
Solvent Screen Ink#	4930 Series	Yellow onto T-1500A* & T-1500B Blue onto T-1500A^ & T-1500B^ Green onto T-1500A* & T-1500B Red onto T-1500A* & T-1500B Red onto T-1501A Yellow*.* Brown onto T-1500B+Clear Coat Black onto T-1500A & T-1500B	Per Table 2/3 70% of Table 4
Screen Printing#	UVTS Ink	Yellow onto T-1500 ^a Blue onto T-1500 ^a Red onto T-1500 ^a ^ Black onto T-1500	Per Table 2/3 70% of Table 4
Digital Printing Ecosolvent#	TrafficJet with OL-1000	Yellow onto T-1500B^ & T-1500D ^a Blue onto T-1500B & T-1500D ^a Green onto T-1500B^ & T-1500D ^a Worboy Green onto T-1500D OL1000 Grey onto T-1500D + OL1000 Red onto T-1500B & T-1500D ^a Red onto T-1501D Yellow ⁺ Brown onto T-1500B & T-1500D ^a Black onto T-1500B & T-1500D Black onto T-1501D	Per Table 2/3 70% of Table 4
Digital Printing UV#	TrafficJet with OL-1000x or OL-2000x Clear	Yellow onto T-1500B^ Yellow onto T-1500D ^a OL-1000 only Blue onto T-1500B & T-1500D ^a Green onto T-1500B^ & T-1500D ^a Worboy Green onto T-1500B OL1000 Worboy Green onto T-1500D OL1000 Red onto T-1500B & T-1500D ^a Red onto T-1501D Yellow ⁺ Brown onto T-1500B & T-1500D ^a Black onto T-1500B & T-1500D Black onto T-1501D Yellow	Per Table 2/3 70% of Table 4
Digital Printing UV Xpress#	TrafficJet with OL-1000x or OL-2000x Clear	Yellow onto T-1500 Blue onto T-1500 Green onto T-1500 Worboy Green onto T-1500 Red onto T-1500 Red onto T-1501 Yellow Brown onto T-1500 Grey onto T-1500 Black onto T-1500 Black onto T-1501 Yellow	Per Table 2/3 70% of Table 4

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

^ - Daytime Chromaticity does not conform to CR2 colorbox

ª – Declared performance is 100% of Table 4 values when processed per German requirements.

* - Combination for which weathering declaration is made under natural weathering protocol.

+ - Declared performance is 50% of red values stated in Table 4.

x - Clear overlay with the UV marking shall be used

General comment: Clear overlay performance is comparable and interchangeable with either Ecosolvent or UV printing.