

STÄRK®

CERTIFICADO DE CALIDAD

Santiago 06 Junio, 2025

Implementos S.A., RUT: 78.924.030-2, con domicilio en Av. Gral. Velásquez 10701, San Bernardo, Santiago. Acredita que las cintas reflectantes, blancas, rojas y bicolor (rojo/blanco), comercializadas por nuestra empresa e identificados más adelante, cumplen con lo indicado en la siguiente ficha técnica de producto.

RHIVIA0001 CINTA REFLECTANTE ROJO BLANCO 45,7 MTS STARK

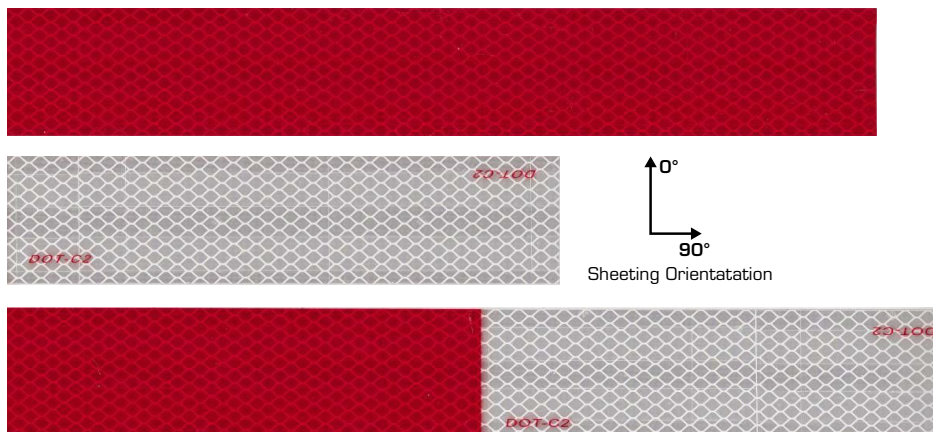


Características

La lámina reflectante está compuesta por segmentos alternados de color blanco y rojo de las siguientes dimensiones.

Segment	Style	Red	White	Required
Length	11/7	279 mm (61.1%)	178 mm (38.9%)	300±150 mm
	6/6	153 mm (50.2%)	152 mm (49.8%)	
Width	11/7	50 mm	501 mm	50 mm (DOT-C2) 50 mm (DOT-C3) 100 mm (DOT-C4)
	6/6	51 mm	51 mm	

Las letras "DOT-C2" aparecen al menos una vez en cada segmento de lámina blanca o roja, en caracteres de al menos 3 mm de altura, o al menos una vez cada 300 mm en láminas blancas únicamente. Las muestras cumplen con los requisitos de marcado de certificación.



Coeficiente de retroreflexión (medición)

Sample	Entrance Angle	Orientation	Coefficient of Retroreflection (Candela / Lux / m2)			
			0.2° Obs. Angle		0.5° Obs. Angle	
			Measured	Required	Measured	Required
11/7 Red #1	-4°	Horizontal (0°)	141.5	60	71.1	
		Vertical (90°)	144.7	†	81.0	
		Horizontal (180°)	142.0	60	70.6	
		Vertical (270°)	141.8	†	78.7	
	+30°	Horizontal (0°)	97.8	60	26.4	
		Vertical (90°)	96.7	†	28.9	
		Horizontal (180°)	94.1	60	27.6	
		Vertical (270°)	101.2	†	32.7	
	+45°	Horizontal (0°)	32.1	15	15.2	
		Vertical (90°)	34.8	†	17.1	
		Horizontal (180°)	30.5	15	15.3	
		Vertical (270°)	33.0	†	16.6	
11/7 Red #2	-4°	Horizontal (0°)	148.5	60	72.6	
		Vertical (90°)	145.1	†	83.0	
		Horizontal (180°)	149.3	60	72.0	
		Vertical (270°)	140.8	†	79.9	
	+30°	Horizontal (0°)	100.9	60	27.3	
		Vertical (90°)	91.6	†	28.9	
		Horizontal (180°)	96.0	60	28.7	
		Vertical (270°)	99.1	†	32.4	
	+45°	Horizontal (0°)	32.8	15	15.7	
		Vertical (90°)	31.9	†	15.4	
		Horizontal (180°)	30.8	15	15.6	
		Vertical (270°)	29.7	†	15.0	
11/7 Red #3	-4°	Horizontal (0°)	142.2	60	71.9	
		Vertical (90°)	146.3	†	83.2	
		Horizontal (180°)	143.5	60	71.7	
		Vertical (270°)	143.7	†	80.8	
	+30°	Horizontal (0°)	98.3	60	26.2	
		Vertical (90°)	97.1	†	29.3	
		Horizontal (180°)	93.8	60	27.5	
		Vertical (270°)	100.9	†	32.7	
	+45°	Horizontal (0°)	32.6	15	15.6	
		Vertical (90°)	34.8	†	16.9	
		Horizontal (180°)	31.0	15	15.7	
		Vertical (270°)	32.3	†	16.3	

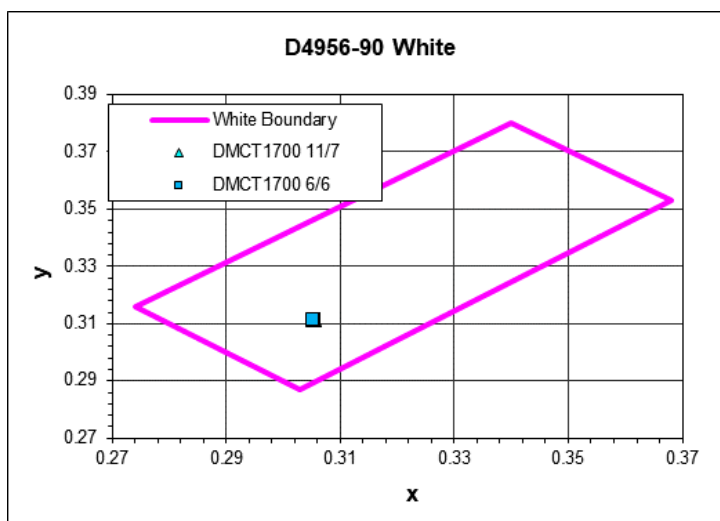
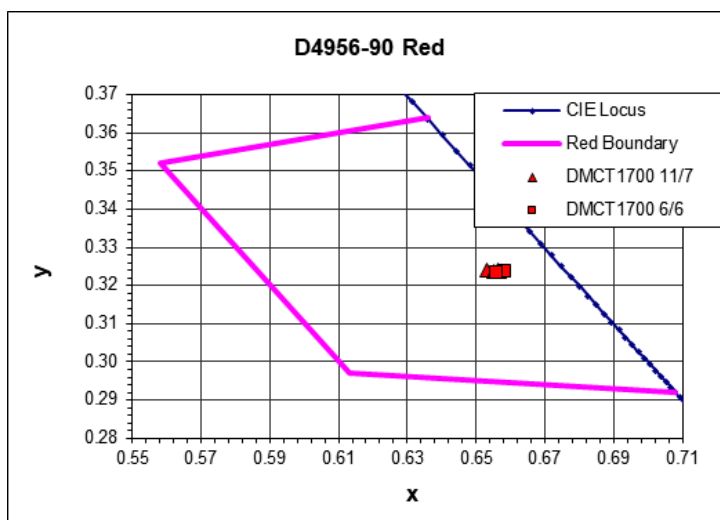
Sample	Entrance Angle	Orientation	Coefficient of Retroreflection (Candela / Lux / m2)			
			0.2° Obs. Angle		0.5° Obs. Angle	
			Measured	Required	Measured	Required
11/7 White #1	-4°	Horizontal (0°)	538.3	250	259.0	65
		Vertical (90°)	490.8		282.7	
		Horizontal (180°)	541.6		258.2	
		Vertical (270°)	473.4		272.9	
	+30°	Horizontal (0°)	372.8	250	115.6	65
		Vertical (90°)	296.8		109.0	
		Horizontal (180°)	352.7		117.8	
		Vertical (270°)	328.7		120.1	
	+45°	Horizontal (0°)	130.2	60	57.5	15
		Vertical (90°)	103.8		44.4	
		Horizontal (180°)	120.1		56.2	
		Vertical (270°)	95.0		44.2	
11/7 White #2	-4°	Horizontal (0°)	524.1	250	264.3	65
		Vertical (90°)	511.5		297.0	
		Horizontal (180°)	530.5		265.3	
		Vertical (270°)	500.4		283.8	
	+30°	Horizontal (0°)	359.4	250	107.2	65
		Vertical (90°)	331.8		106.6	
		Horizontal (180°)	333.1		113.6	
		Vertical (270°)	347.1		124.0	
	+45°	Horizontal (0°)	121.5	60	52.9	15
		Vertical (90°)	119.1		51.0	
		Horizontal (180°)	112.4		54.1	
		Vertical (270°)	110.0		49.9	
11/7 White #3	-4°	Horizontal (0°)	527.0	250	262.5	65
		Vertical (90°)	492.5		277.9	
		Horizontal (180°)	523.9		260.0	
		Vertical (270°)	472.9		270.6	
	+30°	Horizontal (0°)	352.0	250	112.1	65
		Vertical (90°)	308.7		110.9	
		Horizontal (180°)	356.8		114.0	
		Vertical (270°)	337.0		117.7	
	+45°	Horizontal (0°)	129.0	60	58.8	15
		Vertical (90°)	111.6		48.9	
		Horizontal (180°)	123.0		57.0	
		Vertical (270°)	104.2		48.0	

Sample	Entrance Angle	Orientation	Coefficient of Retroreflection (Candela / Lux / m2)			
			0.2° Obs. Angle		0.5° Obs. Angle	
			Measured	Required	Measured	Required
6/6 Red #1	-4°	Horizontal (0°)	133.3	60	72.9	15
		Vertical (90°)	144.3	†	81.1	†
		Horizontal (180°)	134.2	60	74.7	15
		Vertical (270°)	143.8	†	79.8	†
	+30°	Horizontal (0°)	94.0	60	28.1	15
		Vertical (90°)	99.7	†	30.8	†
		Horizontal (180°)	91.9	60	28.5	15
		Vertical (270°)	101.0	†	33.5	†
	+45°	Horizontal (0°)	32.7	15	16.3	4
		Vertical (90°)	36.1	†	17.7	†
		Horizontal (180°)	33.2	15	16.7	4
		Vertical (270°)	35.6	†	17.8	†
6/6 Red #2	-4°	Horizontal (0°)	139.2	60	74.4	15
		Vertical (90°)	149.8	†	83.0	†
		Horizontal (180°)	140.4	60	76.0	15
		Vertical (270°)	149.4	†	82.7	†
	+30°	Horizontal (0°)	99.2	60	28.4	15
		Vertical (90°)	103.7	†	31.0	†
		Horizontal (180°)	93.5	60	28.3	15
		Vertical (270°)	102.8	†	33.7	†
	+45°	Horizontal (0°)	34.5	15	16.9	4
		Vertical (90°)	35.9	†	17.3	†
		Horizontal (180°)	33.1	15	17.0	4
		Vertical (270°)	35.9	†	17.6	†
6/6 Red #3	-4°	Horizontal (0°)	138.3	60	72.4	15
		Vertical (90°)	152.2	†	81.4	†
		Horizontal (180°)	139.1	60	73.4	15
		Vertical (270°)	150.9	†	80.2	†
	+30°	Horizontal (0°)	96.6	60	27.7	15
		Vertical (90°)	103.3	†	31.1	†
		Horizontal (180°)	93.8	60	27.8	15
		Vertical (270°)	105.7	†	34.0	†
	+45°	Horizontal (0°)	33.0	15	16.2	4
		Vertical (90°)	35.8	†	17.5	†
		Horizontal (180°)	32.6	15	16.4	4
		Vertical (270°)	35.2	†	17.3	†

Sample	Entrance Angle	Orientation	Coefficient of Retroreflection (Candela / Lux / m2)			
			0.2° Obs. Angle		0.5° Obs. Angle	
			Measured	Required	Measured	Required
6/6 White #1	-4°	Horizontal (0°)	460.9	250	256.2	65
		Vertical (90°)	524.3		297.5	
		Horizontal (180°)	464.6		263.8	
		Vertical (270°)	522.4		293.7	
	+30°	Horizontal (0°)	335.1	250	111.7	65
		Vertical (90°)	354.5		126.8	
		Horizontal (180°)	317.5		109.6	
		Vertical (270°)	352.5		139.2	
	+45°	Horizontal (0°)	122.4	60	56.3	15
		Vertical (90°)	126.5		55.5	
		Horizontal (180°)	121.0		57.5	
		Vertical (270°)	120.8		55.7	
6/6 White #2	-4°	Horizontal (0°)	461.0	250	252.5	65
		Vertical (90°)	516.3		292.4	
		Horizontal (180°)	464.4		258.8	
		Vertical (270°)	516.5		290.8	
	+30°	Horizontal (0°)	330.0	250	110.9	65
		Vertical (90°)	359.5		125.2	
		Horizontal (180°)	316.7		111.2	
		Vertical (270°)	358.1		136.4	
	+45°	Horizontal (0°)	115.5	60	53.0	15
		Vertical (90°)	133.9		59.5	
		Horizontal (180°)	116.9		55.3	
		Vertical (270°)	129.9		60.1	
6/6 White #3	-4°	Horizontal (0°)	467.8	250	252.4	65
		Vertical (90°)	517.1		289.6	
		Horizontal (180°)	471.8		260.4	
		Vertical (270°)	516.1		286.0	
	+30°	Horizontal (0°)	340.6	250	114.7	65
		Vertical (90°)	365.2		124.8	
		Horizontal (180°)	328.5		111.6	
		Vertical (270°)	360.4		137.3	
	+45°	Horizontal (0°)	123.8	60	57.1	15
		Vertical (90°)	134.9		59.9	
		Horizontal (180°)	124.7		58.7	
		Vertical (270°)	131.5		60.4	

Color y luminancia diurnos

Color	Sample	x	y	Y		
				Measured	Minimum	Maximum
11/7 Red	#1	0.6531	0.3240	8.84	2.5	11
	#2	0.6552	0.3237	9.28		
	#3	0.6565	0.3239	8.99		
11/7 White	#1	0.3054	0.3115	51.65	15	-
	#2	0.3052	0.3113	51.30		
	#3	0.3054	0.3114	51.43		
6/6 Red	#1	0.6573	0.3235	9.15	2.5	11
	#2	0.6582	0.3236	9.04		
	#3	0.6559	0.3234	9.11		
6/6 White	#1	0.3055	0.3115	50.76	15	-
	#2	0.3054	0.3114	50.92		
	#3	0.3053	0.3113	51.17		



Contracción

Sample	Side	10 minutes		24 hours	
		Measured	Maximum Allowed	Measured	Maximum Allowed
11/7 Red/White	1	N/C	1/32"	N/C	1/8"
	2	N/C		N/C	
	3	N/C		N/C	
	4	N/C		N/C	
6/6 Red/White	1	N/C	1/32"	N/C	1/8"
	2	N/C		N/C	
	3	N/C		N/C	
	4	N/C		N/C	

Flexibilidad

Sample	Results		
	0°	45°	90°
11/7 Red/White	No cracking.	No cracking.	No cracking.
6/6 Red/White	No cracking.	No cracking.	No cracking.

Extracción del revestimiento

Sample	Results
11/7 Red/White	Liner easily removed without assistance and did not break, tear, or remove adhesive.
6/6 Red/White	Liner easily removed without assistance and did not break, tear, or remove adhesive.

Adhesión

Sample	Peel Distance		Maximum
	A1	A2	
11/7 Red/White	0.12 in.	0.07 in.	2.0 in.
6/6 Red/White	0.12 in.	0.10 in.	

Resistencia al impacto

Sample	Results
11/7 Red/White	No cracking or delamination outside impact area.
6/6 Red/White	No cracking or delamination outside impact area.

Brillo especular (85°)

Sample	Measured				Minimum
	#1	#2	#3	Avg	
11/7 Red	94.6	92.2	96.1	94.3	40
11/7 White	95.9	93.1	94.7	94.6	
6/6 Red	96.4	97.9	95.6	96.6	
6/6 White	93.0	90.6	94.2	92.6	