

ANSI/ISEA 107-2004 Combined-Performance Material Testing Report, Level 1

Material Description:	Test Lab(s):
Lot #:	Address:
Manufacturer:	Contact Person:
Color:	Date Tested:

COLOR REQUIREMENTS				
Test	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail
Color, prior to Exposure Tests	7.1.2, 9.2	The chromaticity shall lie within the area defined in Table 3. (Attach color plot to test report.)	x = y =	
	7.1.2, 9.2	The daytime luminance factor (%Y) shall meet or exceed the minimums defined in Table 3.	%Y =	
Colorfastness after Xenon Test	7.1.3, 9.2	The chromaticity shall lie within the area defined in Table 3. (Attach color plot to test report.)	x = y =	
	7.1.3, 9.2	The daytime luminance factor (%Y) shall meet or exceed the minimums defined in Table 3.	%Y =	

PHOTOMETRIC PERFORMANCE REQUIREMENTS

Take measurements at $\varepsilon_1 = 0^\circ$ and $\varepsilon_2 = 90^\circ$. Record maximum value on left side of test result column and the other value on right side of test result column.

ANSI/ISEA 107 Requirement Section 8.1, Table 6			Test Result cd/(lx·m ²)		Pass/ Fail
Observation Angle	Entrance Angle	Minimum cd/(lx·m ²)			
12' (0.2°)	5°	250 / 187.5			
	20°	220 / 165			
	30°	135 / 101.25			
	40°	50 / 37.5			
20' (0.33°)	5°	120 / 90			
	20°	100 / 75			
	30°	75 / 56.25			
	40°	30 / 22.5			
1.0°	5°	19 / 14.25			
	20°	11 / 8.25			
	30°	9 / 6.75			
	40°	7 / 5.25			
1.5°	5°	7 / 5.25			
	20°	5 / 3.75			
	30°	3 / 2.25			
	40°	3 / 2.25			

PHYSICAL PERFORMANCE REQUIREMENTS

Test	Section	ANSI/ISEA 107 Requirement	Test Result	Pass/ Fail
Retroreflection, after abrasion	8.2 , 9.4.1	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection, after flexing	8.2, 9.4.2	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection, after folding at cold Temperatures	8.2, 9.4.3	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection, after exposure to temperature variation	8.2, 9.4.4	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection, after washing (when applicable)	8.2, 9.4.5, 9.4.6	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection, after dry cleaning (when applicable)	8.2, 9.4.5, 9.4.7	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	
Retroreflection in rainfall	8.2 , 9.4.8	$R_A (0.2^\circ/5^\circ) > 100 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_1 $R_A (0.2^\circ/5^\circ) > 75 \text{ cd}/(\text{lx}\cdot\text{m}^2)$ at ε_2	ε_1 : ε_2 :	