

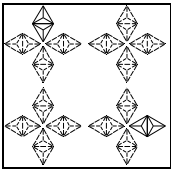
## Description

ORALITE® 2018 film is a tough weather resistant, highly reflective sheeting designed to be high frequency welded to a vinyl backing into various shapes.

## Product Construction

ORALITE® 2018 is composed of cube corner (microprism) retroreflective elements integrally bonded to a flexible, smooth-surfaced tough and weather resistant UV stabilised polymeric film. The prism surfaces are protected from dirt and moisture by high frequency welding the sheeting to a soft vinyl backing.

## Film Logo Pattern



## Colour

ORALITE® 2018 is available in white and fluorescent lime. ORALITE® 2018, when welded to soft white vinyl backing conforms to the colour requirements in Table 3, when measured in accordance with CIE Publication No. 15.2. The four pairs of coordinates determine the acceptable colour when measured with standard illuminant D<sub>65</sub> using a Hunter LabScan.

## Retroreflectivity

When illuminated with CIE illuminate A and measured with provisions of CIE No. 54 the coefficient of retroreflection (RA) of ORALITE® 2018 is shown in Table 1 & 2. Values will be reduced for sealed products dependent upon die configuration. ORALITE® 2018 is designed to meet the photometric requirements of EN 17353:2020. Compliance with EN 17353:2020 is the responsibility of the converter due to variety in final product configuration.

## Impact Resistance

ORALITE® 2018 shall show no signs of cracking or delamination outside the actual area of impact when it is subjected to an impact of 11,3 N·m generated by a 1,8 kg weight with a 16 mm rounded tip on a Gardner variable impact tester, IG-1120. As per ASTM D4956.

## Flexibility Resistance

ORALITE® 2018 sealed in a 2,54 cm grid pattern to a soft white vinyl backing is conditioned to 0° C. The sheeting is sufficiently flexible to show no cracking when bent in one second time around a 3,2 mm diameter mandrel with the vinyl backing contacting the mandrel as specified in ASTM D 4956 reboundable sheeting requirements (S2.2.2).

## Solvent Resistance

ORALITE® 2018 will not dissolve, blister or pucker when wiped with a soft cloth wet with kerosene, mineral spirits, turpentine, VM&P Naphtha, 5% HCL, NaOH or Methanol.

## Shelf Life

The product must be used within one year from the shipment date. All rolls including partially used rolls should be stored in original packaging, tightly wound. Store in a clean and dry area, away from direct sunlight. Store at 20° C and 50% relative humidity.

## Note

Dyes may migrate when placed in direct contact with vinyl and some fabrics. Prior to application, ORALITE® 2018 must be kept separate and should be tested for dye migration. It is the responsibility of the user to evaluate the appropriateness of the material for their application.

Retroreflectivity (White/Fluorescent Lime)

Table 1

Observation Angle	Entrance Angle ( $\beta_1, \beta_2=0$ )		
	$\beta_1 = 0^\circ$ $\beta_2 = +/- 5^\circ$	$\beta_1 = +/-10^\circ$ $\beta_2 = 0^\circ$	$\beta_1 = 0^\circ$ $\beta_2 = +/-20^\circ$
0,20°	560	350	280
0,33°	400	250	200
1,00°	20	10	10
1,50°	16	10	9

All values have units of **mcd/lux**

Table 2

Observation Angle	Entrance Angle ( $\beta_1, \beta_2=0$ )			
	5°	20°	30°	40°
0,20°	550	330	300	110
0,33°	420	300	285	100
1,00°	45	22	20	16
1,50°	16	10	9	7

All values have units of **cd/lux/m<sup>2</sup>**.

Table 3  
Colour Specification Limits and Reference Standards

Colour	Chromaticity Coordinates*									
	1		2		3		4		Y%	
	x	y	x	y	x	y	x	y	min.	max.
15 White	0,303	0,300	0,368	0,366	0,340	0,393	0,274	0,329	27,0	----
20 Fl. lime	0,387	0,610	0,356	0,494	0,398	0,452	0,460	0,540	70,0	----

\*) The four pairs of chromaticity coordinates determine the acceptable chromaticity when measured with standard illuminant C using a Hunter LabScan spectrophotometer.

**IMPORTANT NOTE**

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