

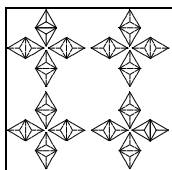
## Description

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 2, 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. Values will be reduced for sealed products dependent upon die configuration. ORALITE® 2018 is designed to meet the photometric requirements of EN 13356:2001. Compliance with EN 13356:2001 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.

**Table 1**  
**Retroreflectivity (white)**

Observation Angle	Entrance Angle ( $\beta_1, \beta_2=0$ )		
	5°	30°	40°
0,20°	550	300	110
0,33°	420	285	100
1,00°	45	20	16
1,50°	16	9	7
2,00°	7	3	3

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

**Table 2**  
**Colour Specification Limits and Reference Standards**

Colour	Chromaticity Coordinates*								Y%	
	1		2		3		4			
	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 NOTICE

All ORALITE® products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects. Published information concerning ORALITE® products is based upon research which the Company believes to be reliable although such information does not constitute a warranty. Because of the variety of uses of ORALITE® products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use.

All specifications are subject to change without prior notice.

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