

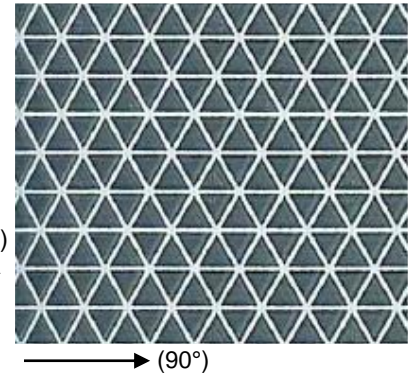
### Description

ORALITE® retroreflective films series 5937M Prismatic Construction Grade is a soft and reflective, weatherproof film bonded to a heavy duty fibre-reinforced material. The product has excellent corrosion and solvent resistance providing outstanding durability and long sign life. The products monolayer construction means the product will not delaminate.

### Application Areas

The surface of reflective sheeting can be screen printed to manufacture foldable construction and work zone signs as well as utility and incident management signs where a high level of reflectivity is required. ORALITE® 5937M is available in roll format and is intended for short- to medium-term outdoor use. The material can be cut to size without necessity for edge sealing.

The products retroreflective system consists of metallised microprisms. The distinct pattern identifies the machine direction and the manufacturer of the sheeting and is shown opposite.



### Product Features

- Metalized Micro-prismatic construction
- Very High Reflectivity
- Soft
- Easy to cut
- Does not delaminate
- Impact Resistant
- Screen Printable
- Easy to clean

### Retroreflectivity

ORALITE® 5937M exceeds the minimum performance requirements of EN 12899-1 (RA2). The required minimum retroreflection values, shown in table 1, are complied with when measured in accordance with the corresponding specifications using CIE standard illuminant A, and the provisions of CIE No.54.2. Typical performance of ORALITE® 5937M is shown in table 2 together with typical specification limits as reference.

### Colour

ORALITE® 5937M sheeting is available in white (010), yellow (020) and Fl. Lime (029). The sheeting conforms to the daytime colour requirements in table 3 when measured in accordance with the corresponding specifications, the provisions of CIE No. 15.2, and shall comply with the specifications of EN 12899-1 (RA2).

### Printing

We recommend ORALITE® screen printing ink series 5010 and 5018. Refer to the technical data sheet of the screen ink for further information.

### Product Data

Table 1: Minimum Reflective Values for new sheeting (cd/lx/m<sup>2</sup>) according to EN 12899-1 (RA2).

Specific coefficient of retroreflection (EN 12899-1 RA2)									
Beobachtungswinkel	0,2°			0,33°			2°		
Eintrittswinkel	5°	30°	40°	5°	30°	40°	5°	30°	40°
White	250	150	110	180	100	95	5	2,5	1,5
Yellow	170	100	70	120	70	60	3	1,5	1

Table 2: Typical Retroreflectivity for new sheeting (cd/lx/m<sup>2</sup>) as per DIN 67520

Specific coefficient of retroreflection R' in cd / lx pro m <sup>2</sup>					
Observation angle		ORALITE® 5937M typical		DIN 67520 - Class RA3B	
		0.33°		0.33°	
Entrance angle		5	30	5°	30°
White	010	460	260	300	165
Yellow	020	290	155	195	110
Fl. Lime	029	240	140	240	130

Table 3: Colour

Colour specification limits at daylight (new sheeting, measured in accordance with CIE No. 15.2):

Chromaticity coordinates (EN12899-1)									
Colours	1		2		3		4		Luminance factor β
	x	y	x	y	x	y	x	y	
White	0.305	0.315	0.335	0.345	0.325	0.355	0.295	0.325	≥ 0.27
Yellow	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.454	≥ 0.16
Fl. Lime*	0.373	0.625	0.358	0.549	0.427	0.483	0.465	0.535	≥ 0.60

\* Fl. Lime is not described in EN 12899-1

### Physical and Chemical Properties

<b>Thickness<sup>1</sup></b>	0.800 mm
<b>Standard Roll Size</b>	1235 mm x 50 m
<b>Shelf life<sup>2</sup></b>	1 year
<b>Service life by specialist application<sup>3</sup></b> under vertical outdoor exposure	4 years
<b>Temperature resistance***</b>	-10° C - +50° C
<b>Resistance to solvents and chemicals</b>	Resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis

<sup>1</sup> average

<sup>2</sup> in original packaging, at 20°C and 50% relative humidity

<sup>3</sup> standard central European climate

**Note:** Values stated in SI units are to be regarded as standard. The values in parentheses are conversions and shall not be considered as the standard, as these values maybe approximate.

### IMPORTANT NOTICE

When using ORALITE® sheeting the relevant national specifications have to be complied with. ORAFOL recommends you obtain the current requirements from your local authority and ensure product conformance with such requirements. Please contact ORAFOL for further information.

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.

No warranty is given for purposes other than those listed in the Technical Datasheet or which are not processed according to ORAFOL's processing and handling instructions. The durability of the signs will depend on a variety of factors, including but not limited to substrate selection and preparation, compliance with recommended application guidelines, geographic area, exposure conditions and maintenance of the product and finished sign. Sign failures caused by the substrate or improper surface preparations are not the responsibility of ORAFOL. Please refer to the full warranty document available at [www.orafol.com](http://www.orafol.com) for detailed information.

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