

Product Description

ORALITE® retroreflective films series 5937M Prismatic Construction Grade are flexible, highly reflective, weatherproof, fabric-backed films with excellent corrosion and solvent resistance. The reflective sheeting is intended for the manufacture of flexible traffic signs intended for medium-term outdoor use. Its retroreflective system consists of metallized microprisms, therefore the sheeting can be cut into any shape without having open air cells at its edges. The reflective film is attached to a fabric backing (65% Polyester, 35% Cotton) which allows sewing of the material. The distinct pattern identifies the manufacturer of the sheeting and is shown in Figure 1.

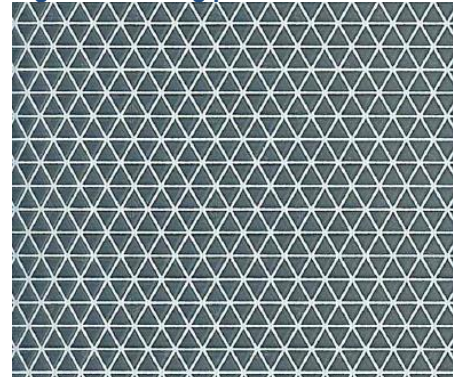
Retroreflectivity

ORALITE® 5937M exceeds the minimum performance requirements of DIN 67520:2013-10 (RA2; design C). 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.

Color

ORALITE® 5937M sheeting is available in white (010) and fluorescent yellow-green (029). The sheeting conforms to the daytime color requirements in table 2 when measured in accordance with the corresponding specifications, the provisions of CIE No. 15.2, and shall comply with the specifications of DIN 6171:2013- 10.

Figure 1: Sealing pattern



Application/Processing

ORALITE® 5937M was especially developed for flexible traffic sign applications. For other applications the user is fully responsible for evaluating the suitability of the product, and for any risks associated with that use.

Please contact your ORAFOL Reflective Solutions Division representative for advice relating to the above.

Note: All ORALITE® products are manufactured within an ISO 9001:2008 controlled manufacturing environment and batch traceability is possible on the basis of the roll number.

Product Data

Retroreflectivity for new sheeting

Table 1 – Specific coefficient of retroreflection in cd/lx/m ² (DIN 67520:2013-10 RA2; design C)									
Observation angle	0.2°			0.33°			2°		
Entrance angle	5°	30°	40°	5°	30°	40°	5°	30°	40°
White	250	150	110	180	100	95	5	2.5	1.5
Fluorescent yellow-green*	170	100	70	120	70	60	3	1,5	1

* Orafol-internal specification based on DIN 67520:2013-10 RA2 (table 3), color yellow

Daytime color specification limits for new sheeting

Table 2 – Chromaticity coordinates (DIN 6171: 2013-10 table 3 or table 6)									
Colours	1		2		3		4		Luminance factor β
	x	y	x	y	x	y	x	y	
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	≥ 0.25
Fluorescent yellow-green	0,373	0,625	0,358	0,549	0,427	0,483	0,465	0,535	≥ 0.40

Physical and Chemical Properties

Thickness ¹ (without protective paper and adhesive)	0.500 mm (color 010, 20 mils) / 0.600 mm (color 029, 24 mils)
Shelf life ²	1 year
Service life by specialist application ³ under vertical outdoor exposure	5 years functional guarantee on retroreflection and color

¹ average

² in original packaging, at 20°C and 50% relative humidity

³ 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 for detailed information.

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