

Description

ORALITE® 5421 Commercial Fleet Marking Grade are flexible, weatherproof, self-adhesive retroreflective films with an excellent corrosion and solvent resistance. The smooth surface shows a high scratch resistance and impact strength, and a very good printability

The retroreflective system of the ORALITE® 5421 consists of catadioptric glass beads which are embedded in a transparent layer of plastic material (class RA1, design A, formerly Type I).

ORALITE® 5421 exceeds the retroreflectivity performance requirements of EN 12899-1 (Europe). The daytime colours are in accordance to international specifications for reflective materials of this class, as EN 12899-1 (Europe), DIN 67520 and DIN 6171 (Germany), BS 873: Part 6 (UK), NFP 98-520 (France), SN 640878 (Switzerland), ASTM D 4956 (USA), JIS Z 9117 (Japan).

Front Material

Special cast PVC film

Release Paper

PE-coated silicone paper, 145 g/m².

As the product and batch number are applied to the silicone-coated paper, all production parameters and raw materials can be completely traced back.

Adhesive

Solvent polyacrylate, removable.

Area of Use

ORALITE® 5421 Commercial Fleet Marking Grade was especially developed for the manufacture of warning signs on cars and is removable from lacquered surfaces with the help of heat. The films are made for medium-term outdoor use. The material is equipped with an imprint according to the French norm TPESC A 10071, necessary for warning signs and available both as application kit and rolls.

When using the ORALITE® 5421, the particular national specifications have to be complied with.

Product Data

Minimum reflection data (EN 12899-1)

Table 1 – Specific coefficient of retroreflection R' in cd/lx/m ²									
Observation angle	0.2°			0.33°			2°		
Entrance angle	5°	30°	40°	5°	30°	40°	5°	30°	40°
white (010)	70	30	10	50	24	9	5	2.5	1.5
yellow (020)	50	22	7	35	16	6	3	1.5	1
red (030)	14,5	6	0	10	0	0	-	0	0

Colours (DIN 5033 Part 3, DIN 5036 Part 1, DIN 6171, state as manufactured)

Table 2 – Colour coordinates									
Colours	1		2		3		4		Luminance factor β
	X	y	X	y	X	y	X	y	
white (010)	0.305	0.315	0.335	0.345	0.325	0.355	0.295	0.325	≥ 0.27
yellow (020)	0.494	0.505	0.470	0.480	0.513	0.437	0.545	0.454	≥ 0.16
red (030)	0.735	0.265	0.700	0.250	0.610	0.340	0.660	0.340	≥ 0.03

Physical and Chemical Properties

Thickness* (without protective paper and adhesive)	90 micron
Temperature resistance**	adhered to aluminium, -50° C to +82° C
Adhesive power* (FINAT-TM1 after 24h, stainless steel)	15 N/25 mm (film tear)
Shelf life**	2 years
Application Temperature	> +10° C
Service life by specialist application under vertical outdoor exposure (standard central European climate)	4 years

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

Note

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be allowed to dry for at least three weeks and to completely cure respectively. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. The self-adhesive reflective material can only be used for dry application. Furthermore the application information published by ORAFOL is to be considered.

IMPORTANT NOTE

All ORAFOL products are subject to careful quality control throughout the entire manufacturing process, and it is ensured that they are of merchantable quality and free from manufacturing defects. The information published is based on our analyses and studies and does not constitute any warranted properties or any agreement as to quality. Due to the diverse possibilities of use of ORAFOL products and the constant development of new applications, the buyer should carefully consider the suitability and performance of the product for the respective purpose; it bears all risks associated with such use. No warranty is given for purposes other than those listed in the Technical Data Sheet or for applications that are not processed in accordance with ORAFOL's processing instructions.

The durability of the end product depends upon a variety of factors, including but not limited to substrate selection and preparation, compliance with the recommended application guidelines, geographical area, exposure conditions and maintenance of the ORAFOL material and of the end product. Product defects caused by the substrate or improper surface preparation do not lie within ORAFOL's sphere of responsibility.

When using ORAFOL products, the pertinent national regulations are to be observed. ORAFOL recommends that you obtain the current stipulations from your local authority and ensure that the product meets these requirements. Please contact ORAFOL for further information.

ORALITE® is a trademark of ORAFOL Europe GmbH.

