ORALITE®
5170 LICENSE PLATE GRADE

Description

ORALITE® - Reflective films Series 5170 LICENSE PLATE GRADE are weatherproof, self-adhesive retroreflective films with an excellent corrosion and solvent resistance.
The retroreflective system of the ORALITE® - Reflective films Series 5170 LICENSE PLATE GRADE consists of catadioptric glass beads which are embedded in a transparent layer of plastic material. The smooth surface shows a high scratch resistance and impact strength, and a very good printability.
The reflective data and colours at daylight comply with the requirements of the British Standard BS AU 145d:1998.

Front material

Alkyd resin with embedded micro-glass beads

Release paper

Silicone coated paper on one side, 137g/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, permanent

Area of use

ORALITE® - Reflective films Series 5170 LICENSE PLATE GRADE were especially developed for the manufacture of car license plates of English stile.
When using the ORALITE® - Reflective films Series 5170 LICENSE PLATE GRADE, the particular national specification has to be complied with.

Printing method

Thermotransfer printing is recommended.

Technical data

Minimum reflection da (BS AU 145d:1998)

		Specific coefficient of retroreflection R' in cd / lx per m²								
Observation angle		0,2°			0,33°			1,5°		
Entrance angle		5°	30°	45°	5°	30°	45°	5°	30°	45°
white	010	60	25	6	40	14	3	4	2	0,7
yellow	020	40	18	4	30	10	2	3,5	1,5	0,5

Colours (BS AU 145d:1998)

		Colour coordinates								Luminance factor ß
		1		2		3		4		
		x	y	x	y	x	y	x	y	
white	010	0,355	0,355	0,305	0,305	0,285	0,325	0,335	0,375	>=0,34
yellow	020	0,545	0,454	0,487	0,423	0,427	0,483	0,465	0,534	>=0,2; <=0,4

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Thickness* (without protective paper and adhesive)	115 micron
Temperature resistance	adhered to aluminium, -56°C to +82°C
Seawater resistance (DIN 50021)	adhered to aluminium, after 100h/23°C no variation
Resistance to solvents and chemicals	with expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis
Resistance to cleaning agents	adhered to aluminium, 8h in washalcalics (0,5% household-cleaning agents) at room temperature and 65°C, no variation
Adhesive power* (FINAT TM 1, after 24h, stainless steel)	15 N/25mm (film tear)
Tensile strength (DIN 53455)	
along	min. 10 N/mm²
across	min. 10 N/mm²
Elongation at break (DIN 53455)	
along	min. 20%
across	min. 20%
Shelf life**	2 years
Minimum application temperatur	min. 15°C
Service life by specialist application under vertical outdoor exposure (standard central European climate)	6 years

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

Attention:

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 selfadhesive reflective material can only be used for dry application. The low tensile strength of the material can make the removability of the reflective film more difficult. Furthermore the application information published by ORAFOL is to be considered.

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