

## Product Description

ORALITE® 5081 Lettering Film is an opaque, non-reflective high-performance cast vinyl film for the manufacture of permanently bonded markings or letters on road signs. Its special polymeric, non-migrating plasticizers and UV-stabilizers guarantee a maximum light-fastness and weather resistance for up to 10 years. The product is available in black or white with a gloss or matt surface finish. ORALITE® 5081 Lettering Film contains an identification water mark (OR) and features maximum dimensional stability and optimum cutting and processing properties.

## Adhesive

Solvent polyacrylate, permanent

## Release Paper

Special coated silicon paper on one side, 137 g/m<sup>2</sup>.

## Application/Processing

ORALITE® 5081 Lettering Film was especially developed for use on cutting plotters to produce long term lettering, markings and symbols on any kind of traffic signs, traffic control and guidance signs, warning and information signs made from ORALITE® series 5800, 5810, 5900, 5910, 6900 or 6910.

At least 48 hours before and during processing and application of the product, the ambient temperature shall be 18 to 24°C with 35 to 55% relative humidity. The final bonding strength will be reached after about one day, depending on the application conditions.

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. Furthermore, the application information published by ORAFOL is to be considered.

ORALITE® products are manufactured within an ISO 9001:2015 controlled manufacturing environment and batch traceability is possible on the basis of the roll number.

## Physical and Chemical Properties

<b>Thickness*</b> (without protective paper and adhesive)	50 micron
<b>Dimensional stability (FINAT TM 14)</b>	Applied to steel, no measurable shrinking in cross direction, in length 0.1 mm max.
<b>Temperature resistance</b>	Adhered to aluminium, -56° C to +90° C (-69° F to 194° F)
<b>Salt-water resistance (DIN 50021)</b>	Adhered to aluminium, after 100h at 23° C (74° F) no variation
<b>Resistance to solvents and chemicals</b>	With expert application resistant to most oils, grease, fuels, aliphatic solvents, weak acids, salts and alkalis
<b>Resistance to cleaning agents</b>	Adhered to aluminium, 8h in wash alkalis (0.5% household cleaning agents) at room temperature and 65° C: no variation
<b>Fire behaviour (DIN 75200)</b>	Adhered to steel: self-extinguishing
<b>Adhesive power*</b> (FINAT-TM 1 after 24h, stainless steel)	18 N/25 mm (25 mm = 0.98 in)
<b>Tensile strength (DIN EN ISO 527)</b>	Along: 20 MPa min. Across: 20 MPa min.
<b>Elongation at break (DIN EN ISO 527)</b>	Along: 135% min. Across: 135% min.
<b>Shelf life**</b>	2 years
<b>Application Temperature</b>	> +10° C
<b>Service life by specialist application***</b> (vertical outdoor exposure)	10 years

\* average

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

\*\*\* standard central European climate

## 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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