ORALITE®
Engineered to Save Lives

Reflective Solutions

Traffic Signs and Construction Zones

Reflective materials and printing solutions for the production of permanent and temporary traffic signs and guidance systems

ORAFOL
ENGINEERED
FOR EXCELLENCE

Symbols and Specifications

Symbols

Durability: up to 5 years

Short term outdoor use

Weather resistant

High degree of weather resistance

UV digital printing (ORALITE® UV Traffic Sign Printer + 5019i Ink)

Eco-solvent printing (ORALITE® ECO Traffic Printer + 5017 Ink)

Screen printing (ORALITE® 5018 Ink)

Easy to process

Specifications

CE certified, compliance to EN 12899-1
Product bears the CE marking in accordance with EN 12899-1, the European standard for fixed, vertical road traffic signs defining performance classes for retroreflectivity, colour, durability and structural integrity.

Class RA3B, Design C
Highest retroreflective performance class using microprismatic construction. Provides maximum retroreflectivity at all observation and entrance angles for optimum visibility on high-speed roads.

Class RA2, Design C
Retroreflective performance class using microprismatic construction (air-backed or metallised). Offers superior wide-angle retroreflectivity and long-distance visibility for high-speed environments.

Class RA2, Design B
Retroreflective performance class using encapsulated glass bead construction. Delivers enhanced retroreflectivity, particularly effective at wide observation angles and short distances.

Class RA1, Design C
Standard retroreflective performance class using microprismatic construction. Combines basic retroreflectivity requirements with the superior optical efficiency of prismatic technology.

Class RA1, Design A
Retroreflective performance class using embedded glass bead construction. Provides standard retroreflectivity suitable for supplementary and low-speed signage.

DIN 67520
German standard specifying minimum photometric requirements for retroreflective materials used on traffic signs, traffic facilities and objects in road and rail traffic areas.

DIN 30710
German standard for retroreflective red-and-white warning markings (45° stripes, min. class RA2) on vehicles with special traffic rights, including road construction, winter service and emergency vehicles.

ASTM D4956 (Type XI)
US standard for super-high-efficiency microprismatic retroreflective film, optimised for both medium and long viewing distances. Widely used for highway and overhead signage.

ASTM D4956 (Type IV)
US standard for high-intensity microprismatic retroreflective film. Typically an unmetallised air-backed microprismatic material for permanent highway signing and construction zone devices.

ASTM D4956 (Type III)
US standard for high-intensity retroreflective film using encapsulated glass bead construction. Used for permanent highway signing, construction zone devices and delineators.

ASTM D4956 (Type I and II)
US standard for medium- to medium-high-intensity retroreflective film using enclosed glass bead or microprismatic construction. Type I (engineering grade) and Type II (super engineering grade) for highway signing and traffic devices.

ASTM D4956 (Type I)
US standard for medium-intensity retroreflective film using enclosed glass bead or microprismatic construction. Used for highway signing, construction zone devices and delineators.

CE certified
Product bears the CE marking, with the applicable European Construction Products Regulation, confirming conformity in compliance with the harmonized technical standards.

EN 12899-1
Harmonized European Standard, specifying the requirements for fixed, vertical road traffic signs in new condition, in use and defining the test methods.

EAD 120001-01.0106
European Assessment Document specifying the essential characteristics of the microprismatic film and methods for assessing the performance.

Traffic Signs & Construction Zones

Reflective materials and printing solutions for the production of permanent and temporary traffic signs and guidance systems

01 Prismatic materials for traffic signs

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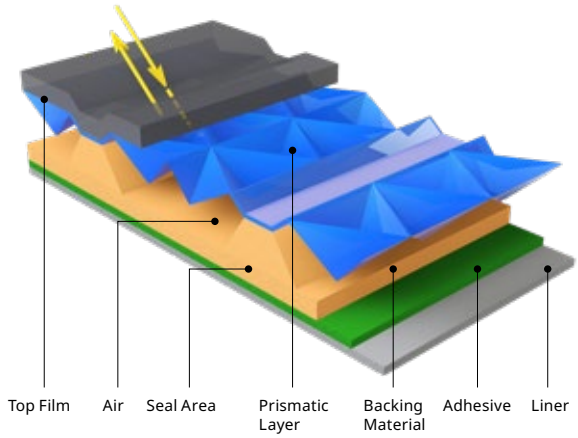
Principles of Retroreflection

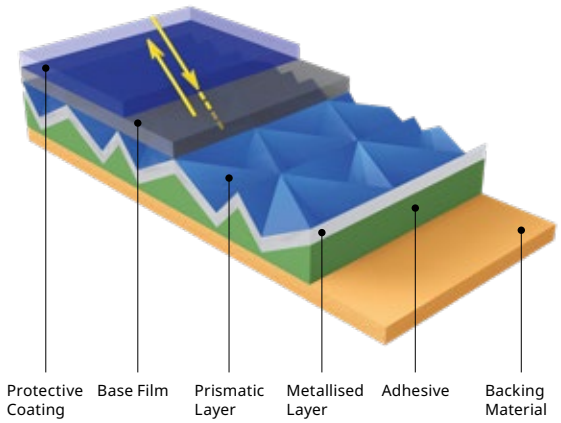
Retroreflection technology uses four design principles to reliably reflect light back to its source. Each principle is characterised by specific performance features.

Prismatic air-backed construction
Design C



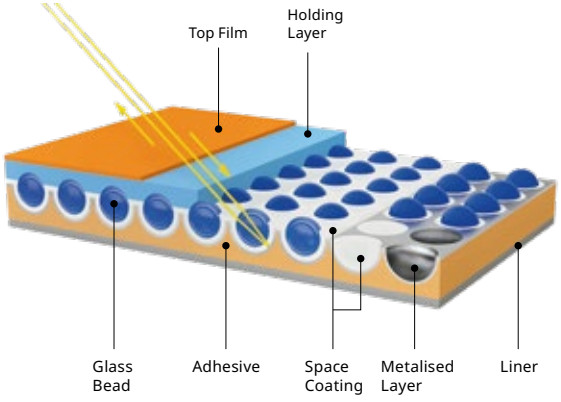
Sophisticated microprisms with an integrated air layer ensure particularly bright reflection and maximum efficiency. This construction is robust and durable, even under demanding conditions.

Prismatic metallised construction
Design C



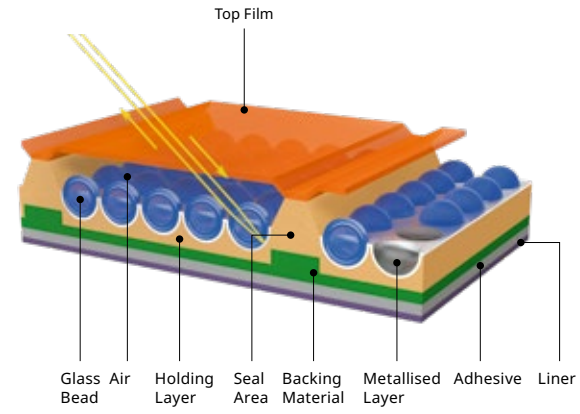
Microprisms with a metallic coating combine high reflection values with greater material flexibility.

Embedded glass bead construction
Design A



In this construction, glass beads are embedded directly into the substrate. They ensure reliable reflection, high durability and consistent performance throughout the entire service life.

Encapsulated glass bead construction
Design B



Here, glass beads are completely enclosed in a protective layer. This provides maximum reflection, increased durability and protection of the beads from abrasion or environmental influences.

01
Prismatic materials for traffic signs

ORALITE®
Microprismatic Films

ORALITE®
Microprismatic Films

ORALITE® microprismatic films cover all reflection classes (RA1–RA3) and comply with CE approval or the ASTM standard. Ideal for durable traffic signs, warning signs and directional signs with high visibility at night and in wet conditions.

Product overview

				Specification							Printing			Lettering Film		Transparent Film		Overlay Film			
Product	Colour	Standard width (mm)	Durability up to (years)	CE certified	EN 12899-1	Class	Design	ASTM D4956	Type	DIN 67520	UV digital ORALITE® 5019i Ink	Eco-solvent ORALITE® 5017 Ink	Screen ORALITE® 5018 Ink	ORALITE® 5081	ORALITE® 5071	ORALITE® 5061	ORALITE® 5062	ORALITE® 5090 Anti-Dew-Film	ORALITE® 5095 Anti-Graffiti-Film	ORALITE® 5097 Astifol® Anti-Sticker-Film	Technology
ORALITE® 9910 Brilliant Grade Premium		1235, 610	12*	✓	✓	RA3B	C	–	–	✓	✓	✓	✓	✓	–	✓	–	✓	✓	–	Prismatic air-backed
ORALITE® 9900 Brilliant Grade Premium		1235, 610	12*	–	–	–	–	✓	XI	–	✓	–	✓	✓	–	✓	–	✓	✓	–	Prismatic air-backed
ORALITE® 6910 Brilliant Grade		1235, 610	12*	✓	✓	RA3B	C	–	–	✓	✓	✓	✓	✓	–	✓	–	✓	✓	–	Prismatic air-backed
ORALITE® 6910T Brilliant Grade Translucent		1235, 610	12*	–	–	RA3B	C	–	–	✓	✓	✓	✓	–	–	✓	–	–	–	–	Prismatic air-backed
ORALITE® 5910 High Intensity Prismatic Grade	**	1235, 610	10	✓	✓	RA2	C	–	–	–	✓	✓	✓	✓	–	✓	–	✓	✓	✓	Prismatic air-backed
ORALITE® 5900 High Intensity Prismatic Grade		1235, 610	10	–	–	–	–	✓	IV	–	✓	✓	✓	✓	–	✓	–	✓	✓	–	Prismatic air-backed
ORALITE® 6710 Engineer Prismatic Grade		1235, 610	7	✓	✓	RA1	C	–	–	✓	✓	✓	✓	–	✓	–	✓	–	–	–	Prismatic air-backed
ORALITE® 6700 Engineer Prismatic Grade		1235, 610	7	–	–	–	–	✓	I	–	✓	✓	✓	–	✓	–	✓	–	–	–	Prismatic air-backed

* Non-fluorescent colours only
** 029 Fl. yellow-green is not CE certified

ORALITE® 9910
ORALITE® 9900
Brilliant Grade Premium

High-performance ORALITE® microprismatic film with increased visual impact

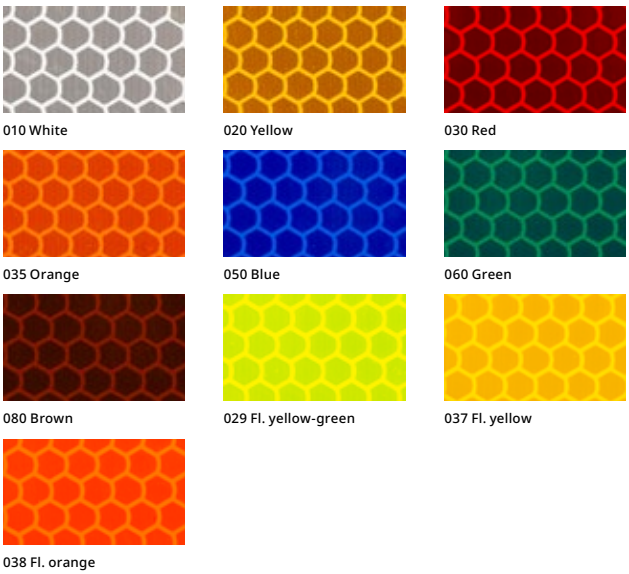
- Prismatic reflective technology
- Surface of UV stabilised acrylic film
- Durability: up to 12 years
  (10y fl. yellow-green/yellow, 3y fl. orange)
- Application temperature: Minimum temperature 10°C
- Adhesive: solvent-polyacrylate
- Excellent printability

Recommended Films:
ORALITE® 5081 Lettering Film
ORALITE® 5061 Transparent Film
ORALITE® 5090 Anti-Dew-Film
ORALITE® 5095 Anti-Graffiti-Film

9910:
CE certified with watermark

9900:
ASTM certified

9910 9900



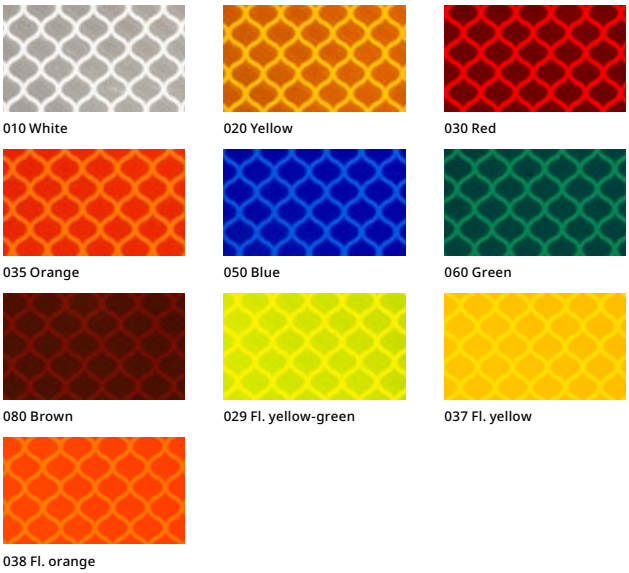
ORALITE® 6910
Brilliant Grade

ORALITE® prismatic film designed for traffic signs for long-term outdoor exposure

- Prismatic reflective technology
- CE certified with watermark
- Surface of high-performance acrylic film
- Durability: up to 12 years
  (10y fl. yellow-green/yellow, 3y fl. orange)
- Application temperature: Minimum temperature 10°C
- Adhesive: solvent-polyacrylate
- Excellent printability

Recommended Films:
ORALITE® 5081 Lettering Film
ORALITE® 5061 Transparent Film
ORALITE® 5090 Anti-Dew-Film
ORALITE® 5095 Anti-Graffiti-Film

6910



ORALITE® 6910T
Brilliant Grade Translucent

Prismatic translucent film for internally illuminated signs, traffic bollards and airfield taxi-way signs with high light transmission and reflective backup

- Prismatic reflective technology
- Surface of UV stabilised acrylic front film
- Durability: up to 12 years
  (10y for fluorescent)
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5061 Transparent Film

6910T

010 White

020 Yellow

029 Fl. yellow-green

037 Fl. yellow

ORALITE® 5910
ORALITE® 5900
High Intensity Prismatic Grade

ORALITE® prismatic film designed for production of traffic signs for long-term outdoor exposure

- Prismatic reflective technology
- Surface of high-performance acrylic film
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5081 Lettering Film
ORALITE® 5061 Transparent Film
ORALITE® 5090 Anti-Dew-Film
ORALITE® 5095 Anti-Graffiti-Film
ORALITE® 5097 Astifol® Anti-Sticker-Film

5910:
CE certified with watermark

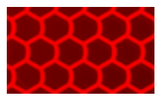
5900:
ASTM certified

5910

5900

010 White

020 Yellow


030 Red

035 Orange

050 Blue

060 Green

080 Brown

029 Fl. yellow-green

037 Fl. yellow

ORALITE® 6710
ORALITE® 6700
Engineer Prismatic Grade

ORALITE® prismatic film designed for traffic signs for long-term outdoor exposure

- Prismatic reflective technology
- Surface of UV stabilised acrylic
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5071 Lettering Film
ORALITE® 5062 Transparent Film

6710:
CE certified with watermark

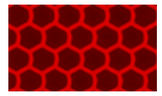
6700:
ASTM certified

6710

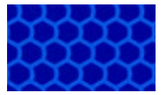
6700

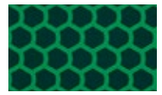
010 White

020 Yellow


030 Red

035 Orange


050 Blue


060 Green

080 Brown

ORALITE® Colour Fans

They provide a compact overview of the patterns in approximately 17.4 cm x 5.0 cm, suitable for consultations, internal evaluations, or training purposes.

Colour fans are available for purchase. Please send your requests to reflective.solutions@orafol.de.

ORALITE® Traffic Signs
Order No.: 2007490

ORALITE® Construction Zone
Order No.: 2007491

02

Glass bead materials for traffic signs

ORALITE® Glass Bead Films

ORALITE®
Glass Bead Films

ORALITE® glass bead films offer reliable retroreflection and comply with CE approval or the ASTM standard. Ideal for medium to long-term traffic signs, with high resistance to weathering and reliable visibility.

Product overview

				Specification							Printing				Lettering Film		Transparent Film			
Product	Colour	Standard width (mm)	Durability up to (years)	CE certified	EN 12899-1	Class	Design	ASTM D4956	Type	DIN 67520	UV digital ORALITE® 5019i Ink	Inkjet printable (solvent, UV, Latex inks)	Eco-solvent ORALITE® 5017 Ink	Screen ORALITE® 5018 Ink	ORALITE® 5081	ORALITE® 5071	ORALITE® 5061	ORALITE® 5062	ORALITE® 5051	Technology
ORALITE® 5810 High Intensity Grade		1235, 920 760, 610	10	✓	✓	RA2	B	–	–	✓	✓	–	✓	✓	✓	–	✓	–	–	Encapsulated glass bead
ORALITE® 5800 High Intensity Grade		1235, 920 760, 610	10	–	–	–	–	✓	III		✓	–	✓	✓	✓	–	✓	–	–	Encapsulated glass bead
ORALITE® 5710 Engineer Grade Premium		1520, 1235, 920, 760, 610	7	✓	✓	RA1	A	–	–	✓	✓	–	✓	✓	–	✓	–	✓	–	Glass bead
ORALITE® 5700 Engineer Grade Premium		1520, 1235, 920, 760, 610	7	–	–	–	–	✓	I	–	✓	–	✓	✓	–	✓	–	✓	–	Glass bead
ORALITE® 5510 Engineer Grade		1235, 920 760, 610	7	✓	✓	RA1	A	–	–	–	–	–	–	✓	–	✓	–	–	✓	Glass bead
ORALITE® 5500 Engineer Grade		1235, 920 760, 610	7	–	–	–	–	–	–	–	–	–	–	✓	–	✓	–	–	✓	Glass bead
ORALITE® 5400 Commercial Grade		1235, 610	4	–	–	–	–	–	–	–	–	✓	✓	✓	–	–	–	–	–	Glass bead
ORALITE® 5300 Commercial Grade		1235, 610	7	–	–	–	–	–	–	–	–	–	–	✓	–	–	–	–	–	Glass bead
ORALITE® 5200 Economy Grade		1235, 610	3	–	–	–	–	✓	I	–	–	✓	✓	✓	–	–	–	–	–	Glass bead
ORALITE® 5200RA Economy Grade		1235, 610	3	–	–	–	–	–	–	–	–	✓	✓	✓	–	–	–	–	–	Glass bead

ORALITE® 5810
ORALITE® 5800

High Intensity Grade

ORALITE® high-intensity glass bead film designed for production of traffic signs for long-term outdoor exposure

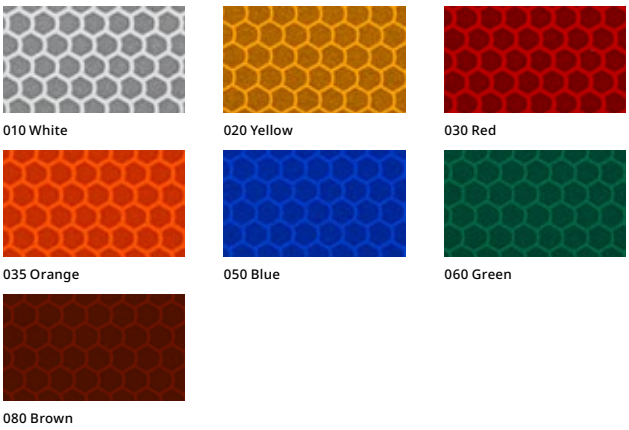
- Encapsulated glass bead reflective technology
- Surface of high-performance acrylic film
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5081 Lettering Film
ORALITE® 5061 Transparent Film

5810:
CE certified with watermark

5800:
ASTM certified

5810 5800



ORALITE® 5710
ORALITE® 5700

Engineer Grade Premium

Glass bead film for traffic signs for long-term outdoor exposure with increased reflectivity compared to standard Engineer Grade

- Glass bead reflective technology
- Alkyd resin surface
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5071 Lettering Film
ORALITE® 5062 Transparent Film

5710:
CE certified with watermark

5700:
ASTM certified
070 Black

5710 5700

ORALITE® 5510
ORALITE® 5500
Engineer Grade

ORALITE® glass bead film designed for production of traffic signs for long-term outdoor exposure

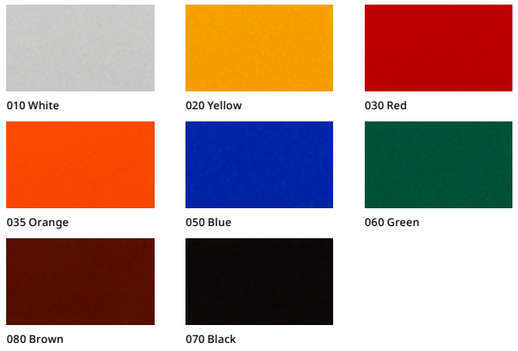
- Glass bead reflective technology
- Alkyd resin surface
- Application temperature: Minimum temperature 10°C
- Excellent printability

Recommended Films:
ORALITE® 5071 Lettering Film
ORALITE® 5051 Transparent Film

5510:
CE certified with watermark

5500:
ASTM certified
070 Black

5510 5500

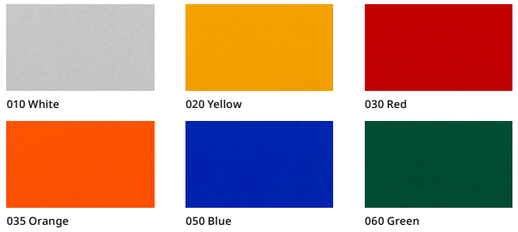


ORALITE® 5400
Commercial Grade

Glass bead film for traffic signs for medium-term outdoor exposure, ideal for info boards and advertising signs

- Glass bead reflective technology
- PVC top surface for max flexibility
- Application temperature: Minimum temperature 10°C
- Adhesive: solvent polyacrylate, permanent adhesive
- Excellent printability

5400

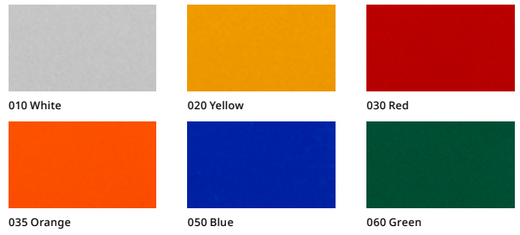


ORALITE® 5300
Commercial Grade

Glass bead film for basic traffic signs for medium- and long-term outdoor exposure, ideal for info boards and advertising signs

- Glass bead reflective technology
- ASTM Type I certified
- Alkyd resin surface
- Application temperature: Minimum temperature 10°C
- Adhesive: solvent polyacrylate, permanent adhesive
- Excellent printability

5300



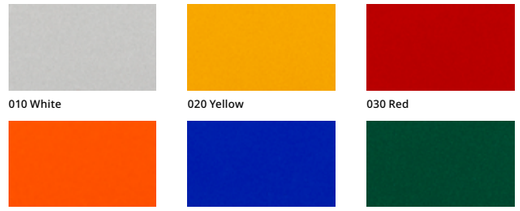
ORALITE® 5200
ORALITE® 5200RA
Economy Grade

Glass bead film with excellent printing properties for advertising sign boards, lettering, markings and graphic applications

- Glass bead reflective technology
- Cast PVC polymer blend surface
- Application temperature: Minimum temperature 10°C
- Excellent printability

only 5200RA:
RapidAir Technology for easy application

5200 5200RA



03

Printing technology to produce traffic signs

ORALITE® Printing Technologies

EXIT
Amsterdam
Deagan

ORALITE®
UV Traffic Sign Printer

The versatile ORALITE® UV Traffic Sign Printer from ORAFOL and Agfa offers the ideal solution for certified and non-certified traffic signs.

This system can be used to produce particularly durable traffic signs; the UV-curing ink can withstand the most extreme conditions.

Technology advantages at a glance

- Certified, reliable printing solutions
- High efficiency thanks to LED technology
- Excellent print quality with spot colours
- Worldwide service support
- Multiple laminate options
- Asanti workflow software
- Low-maintenance thanks to intelligent printhead self-maintenance

Key technical data

- Print width: max. 1.65 m
- Productivity: up to 22 m^2/h (4-pass)
- UV LED hybrid inkjet printing system

Highlights

- High mechanical stability
- Sustainably proven print head technology
- UV LED curing allows immediate lamination

ORALITE® UV Traffic Sign Printer Express (Anapurna H1650i LED)

Stable entry into certified UV digital printing

The ORALITE® UV Traffic Sign Printer Express, proven in the market since 2018, is the compact entry-level solution for professional traffic sign printing. Optimised print heads ensure significantly higher stability and reduce head errors in the long term – for reliable and economical operation.

ORALITE® UV Traffic Sign Printer XP eXceptional Performance
(Anapurna H1650 XP)

NEW GENERATION

High-end performance in a compact design

The ORALITE® UV Traffic Sign Printer XP eXceptional Performance combines space-saving design with proven stability and quality. It is the ideal solution for users who do not need large-format systems but do not want to compromise on industrial performance.

Key technical data

- Print width: 1.40 m
- Productivity: up to 44 m^2/h (1-pass)
- Robust, durable system architecture

Highlights

- Compact construction compliant with the latest EU safety standards
- High productivity
- Stable and consistent print quality

ORALITE® UV Traffic Sign Printer XP eXtra Performing
(Anapurna H3200 LED)

Highly productive large format printing in premium quality

The ORALITE® UV Traffic Sign Printer XP eXtra Performing combines maximum print width (1 or 2 rolls) with excellent print quality and high productivity. The specially developed printer carriage provides additional stability and enables high-gloss print results with consistent precision.

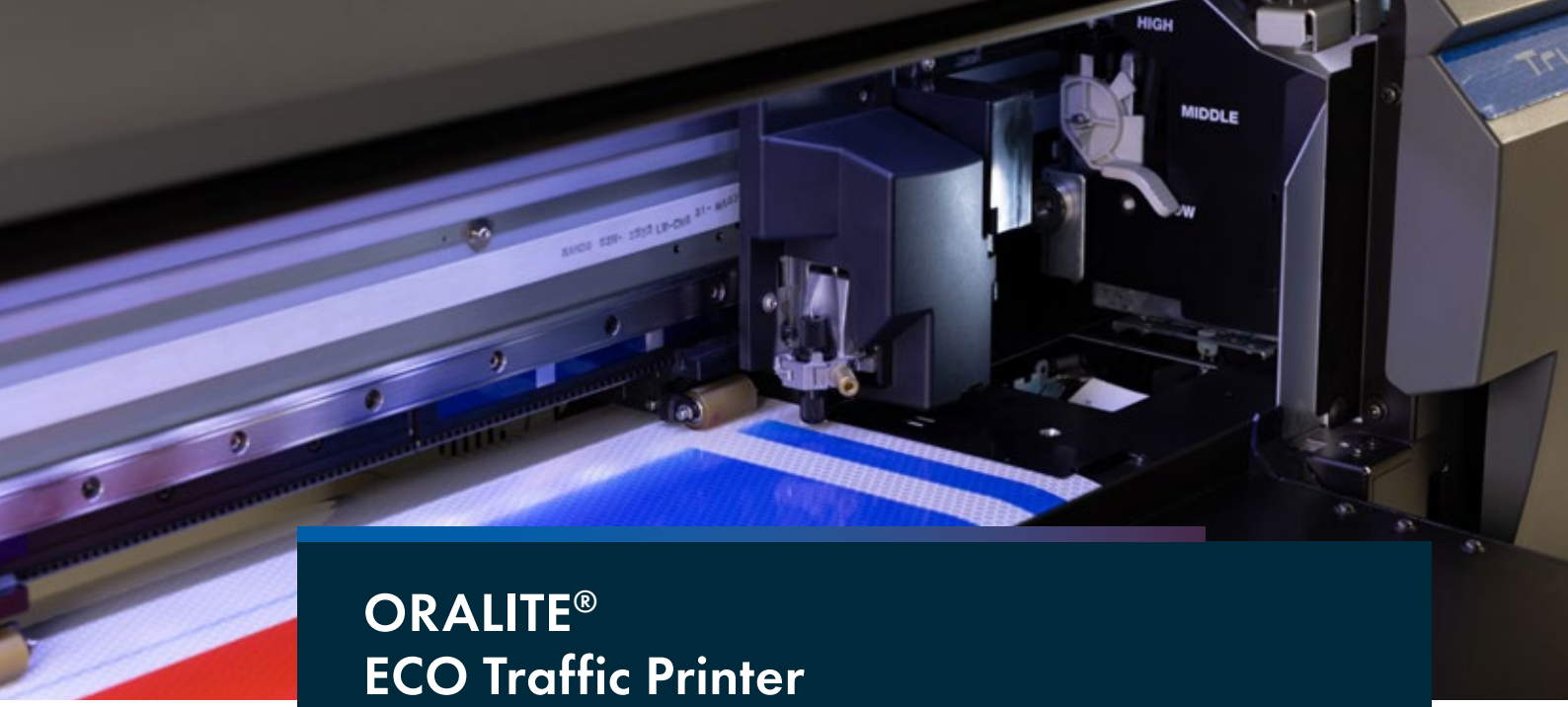
Key technical data

- Print width: up to 3.20 m or 2 x 1.235 m
- Productivity: up to 46 m^2/h (4-pass) 2 rolls (graphics up to 46 m^2/h)

  up to 70 m^2/h (1-pass) 2 rolls
- Versatile for large format applications

Highlights

- Highly transparent print quality
- Innovative carriage design for maximum stability
- Ideal for high production volumes



ORALITE®
ECO Traffic Printer

The ORALITE® ECO Traffic Printer is a specialised system solution for the production of temporary and permanent traffic signs, construction site signage, traffic-related non-reflective symbols, and a wide range of graphic applications.

The printing system enables the production of traffic signs in accordance with current national and international standards, including EN 12899-1:2007 and ASTM D4956-19, and is designed for long service life.

Technology advantages at a glance

- **Reliable: Proven solution for the production of certified traffic and guidance systems.**
- **Resource-efficient: Low maintenance and service requirements compared to alternative printing systems.**
- **User-friendly: Intuitive operating concept with integrated LCD display for high operating comfort.**
- **Service-oriented: In combination with ORAFOL's range of services, the system guarantees consistently high quality and long-term operational reliability.**

Screen printing as a service

ORAFOL has been offering screen printing services for standard traffic signs and customised retroreflective solutions for over 15 years. Retroreflective sign faces are manufactured at the company's headquarters in Oranienburg to the highest print quality standards – using state-of-the-art screen printing technology and an integrated full service.

Solution

Industrial screen printing of retroreflective sign faces

Technology

State-of-the-art screen printing technology for reproducible print quality

Service

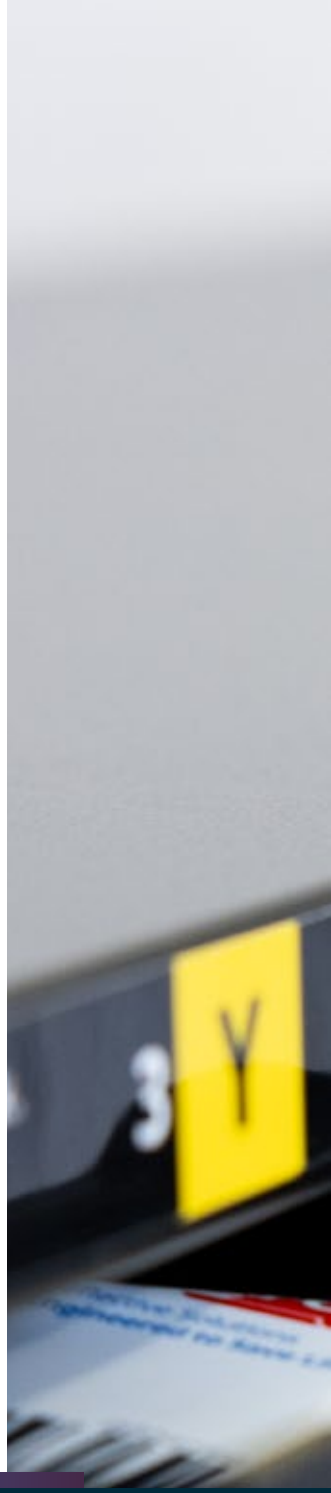
Everything from a single source, from consultation and implementation to delivery

ORAFOL screen printing technology was developed specifically for printing on ORALITE® retroreflective films.

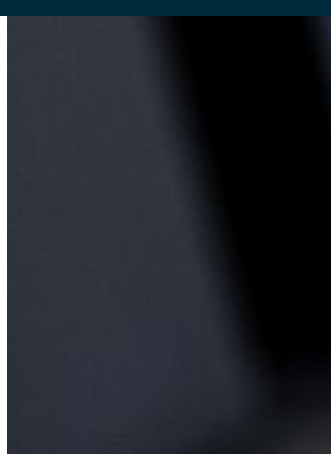
Industrial screen printing technology enables a high degree of reproducibility of printing results.

04

Accessories for sign production



ORALITE® Accessories



ORAFOL

ORALITE® Accessories

ORAFOL offers a full service for professional sign production: in addition to printing technologies and premium films, the range includes transparent films, inks, transfer materials and functional laminates – all from a single source.

Product overview

					Specification**	
Product	**Colour**	**Standard width (mm)**	**Volume (ml)**	**Durability up to (years)**	**CE certified**	**Easy to process**
ORALITE® 5097 **Astifol® Anti-Sticker-Film**		1240		**10**	–	✓
ORALITE® 5095 **Anti-Graffiti-Film**		1235		**10**	–	✓
ORALITE® 5090 **Anti-Dew-Film**		1235 920		**10**	–	✓
ORALITE® 5081 **Lettering Film**	● ●	1220		**10**	–	✓
ORALITE® 5071 **Lettering Film**	● ●	1220		**7**	–	✓
ORALITE® 5062 **Transparent Film**	○			**7**	✓	✓
ORALITE® 5061 **Transparent Film**	○ ● ● ● ● ● ●	1235		**12**	✓	✓
ORALITE® 5051 **Transparent Film**	○ ● ● ●	1235		**7***	–	✓
ORATAPE® MT95 **Application Tape**		1220, 1000, 610, 500			–	
ORATAPE® MT72 **Application Tape**		1220, 1000, 610, 500			–	
ORATAPE® LT72 **Application Tape**		1220, 1000, 610, 500			–	
ORALITE® 5019i **UV Digital Printing Ink**	● ● ● ● ● ●		2 x 750		–	
ORALITE® 5017 **ECO Solvent Digital Printing Ink**	● ● ● ● ●		500		–	
ORALITE® 5018 **Screen Printing Ink**	● ● ● ● ● ● ● ●		800, 2400, 3500, 3750, 5000		–	

* Transparent colour up to 3 years
** Specification is in combination with the relevant film

ORALITE® 5081
ORALITE® 5071
Lettering Film

ORALITE® material specially developed for the lettering and marking of traffic signs

- Adhesive: solvent polyacrylate, permanent adhesive
- with identification watermark

5081:
Durability: up to 10 years

5071:
Durability: up to 7 years

5081 5071

Black Matt

Black Gloss

ORALITE® 5062
Transparent Film

Clear transparent version as UV-protective laminate for ORALITE® materials and ORALITE® digital printing technologies

Adhesive: solvent polyacrylate, permanent adhesive

5062

000 Transparent

ORALITE® 5061
Transparent Film

PMMA high-performance film with transparent gloss finish

- Adhesive: solvent polyacrylate, permanent adhesive

only 000 Transparent:
Clear transparent film suitable for digital printing

5061

000 Transparent

020 Yellow

035 Orange

030 Red

060 Green

050 Blue

080 Brown

070 Black

ORALITE® 5051
Transparent Film

PMMA high-performance film with transparent gloss finish

- Adhesive: solvent polyacrylate, permanent adhesive
- Durability: up to 7 years

only 000 Transparent:

- Clear transparent film suitable for digital printing
- Durability: up to 3 years

3–7 YEARS

5051

000 Transparent

020 Yellow

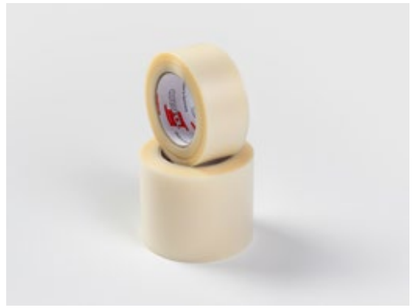
030 Red

050 Blue

ORATAPE® MT95
Application Tape

Highly transparent mounting film on polyethylene basis with a finely grained surface for transferring punched or computer-cut lettering and symbols

MT95



ORATAPE® MT72
ORATAPE® LT72
Application Tape

Semi-transparent mounting paper with high form stability and moisture resistance for the transfer of punched or computer-cut lettering and symbols

MT72: medium adhesive strength
LT72: low adhesive strength

MT72

LT72

ORALITE® 5019i
UV Digital Printing Ink

Durable UV-hardening inkjet ink for traffic signs, for ORALITE® UV Traffic Sign Printer, compatible with ORALITE® reflective films

5019i

020 Yellow

030 Red

060 Green

050 Blue

080 Brown

070 Black

ORALITE® 5017
ECO Solvent Digital Printing Ink

Durable, quick-drying inkjet ink for traffic signs, for ORALITE® ECO Traffic Printer, compatible with ORALITE® reflective films

5017

Cyan

Magenta

Yellow

Black

Red

ORALITE® 5018
Screen Printing Ink

One-component screen printing ink, suitable for printing on all ORALITE® reflective films

5018

020 Yellow

035 Orange

030 Red

060 Green

050 Blue

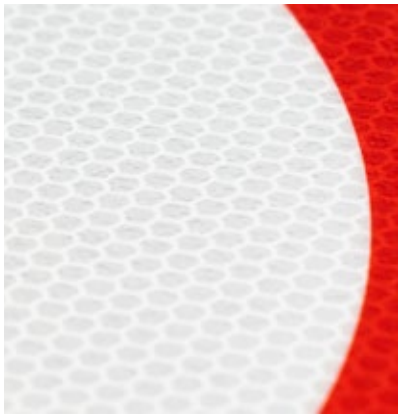
080 Brown

073 Grey

070 Black

ORALITE® 5097
Astifol® Anti-Sticker-Film

Stickers on traffic signs have long been an everyday problem. They cover up important information, compromise road safety and cause road maintenance crews a lot of cleaning work. ORALITE® 5097 Astifol® Anti-Sticker-Film now offers a simple, safe and economical solution.



Self-adhesive, transparent, dirt-repellent polymer film for protection of printed as well as unprinted ORALITE® materials

- Transparent laminate
- Adhesive: solvent polyacrylate, permanent adhesive

5097

Your advantages

- **Significantly less cleaning effort**
- **Quick and easy removal of stickers**
- **Protection of the traffic sign surface**
- **Increased occupational safety for road maintenance workers**

The technology

- **Special ORAFOL surface technology**
- **Slightly roughened structure prevents stickers from adhering to a smooth surface**

ORALITE® 5095 Anti-Graffiti-Film

ORALITE® 5095 Anti-Graffiti-Film reliably protects printed and unprinted traffic signs from graffiti and vandalism. The transparent special film enables easy cleaning without leaving any residue and has a durability of up to 10 years.

Self adhesive transparent fluoropolymer film developed to protect printed and unprinted ORALITE® reflective films against graffiti.

- Transparent fluoropolymer film
- Adhesive: solvent polyacrylate, permanent adhesive

5095

ORALITE® 5090 Anti-Dew-Film

ORALITE® 5090 Anti-Dew-Film has been specially developed for use in humid environments. It reliably prevents the formation of water droplets on traffic signs, ensuring clear retroreflection and visibility of the traffic sign, even in foggy conditions.

Self-adhesive transparent acrylic film ensuring undisturbed retroreflection in wet conditions.

- PMMA film
- Adhesive: Solvent polyacrylate, permanent adhesive

5090

05

Reflective solutions for temporary traffic signs

ORALITE® Materials

ORALITE® Materials

Temporary Traffic and Work Zone Signs

In addition to permanent traffic signs, ORAFOL also offers solutions for temporary signage, e.g. for construction site marking. The portfolio includes prismatic and glass bead films in various reflection classes (RA1–RA2).

Product overview

				Specification						Printing			
Product	Colour	Standard width (mm)	Durability up to (years)	Class	Design	ASTM D4956	Type	NFP 98-520, SN 640878	DIN 67520	UV digital ORALITE® 5019i Ink	Eco-solvent ORALITE® 5017 Ink	Screen ORALITE® 5018 Ink	Technology
ORALITE® 5931 M Prismatic Construction Grade		246 1000x246	5	RA2	C	–	–	–	✓	–	–	–	Prismatic
ORALITE® 5931 Prismatic Construction Grade		246 1000x246	5	RA2	C	–	–	–	✓	–	–	–	Prismatic
ORALITE® 5831 High Intensity Construction Grade		246, 250 1000x246	5	RA2	B	–	–	–	✓	–	–	–	Glass bead
ORALITE® 5431 Construction Grade		246 1000x246	4	RA1	A	–	–	–	✓	–	–	–	Glass bead
ORALITE® 5238M Prismatic Economy Grade		1235, 610	3	RA2	C	–	–	–	–	–	–	✓	Prismatic
ORALITE® 5938MFlex Prismatic Construction Grade		1235, 610	5	RA1	A	–	–	–	–	–	–	✓	Prismatic
ORALITE® 5930MFlex Premium Construction Grade		1235, 610	5	RA2	C	–	–	–	✓	–	–	✓	Prismatic
ORALITE® 5930 Prismatic Construction Grade		1235, 610	5	RA2	C	–	–	–	✓	✓	✓	✓	Prismatic
ORALITE® 5930M Prismatic Construction Grade		1235, 610	5	RA2	C	–	–	–	✓	–	–	✓	Prismatic
ORALITE® 5830 High Intensity Construction Grade		1235, 610	5	RA2	B	–	–	✓	✓	✓	✓	✓	Glass bead
ORALITE® 5430 Construction Grade		1235, 610	4	RA1	A	–	–	–	✓	✓	✓	✓	Glass bead
ORALITE® 5960 High Intensity Prismatic Construction Grade		1235, 610	5	RA2	C	✓	IV	–	✓	✓	–	✓	Prismatic
ORALITE® 5860 High Intensity Construction Grade		1235, 920, 760, 610	5	–	–	–	–	✓	✓	–	–	–	Glass bead
ORALITE® 5021 Economy Cal		1260	2	RA2	B	–	–	–	–	–	–	–	

ORALITE® 5931M
ORALITE® 5931

Prismatic Construction Grade

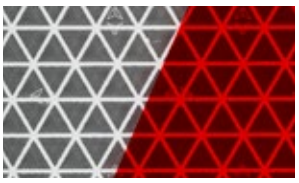
Prismatic single layer film designed for production of high visibility barricades and construction zone signs

- Prismatic reflective technology
- Surface of specially treated PVC film
- Excellent adhesion to polyolefinic substrates
- The material can be printed according to customer requirements *(e.g. block or cone design printing)*.

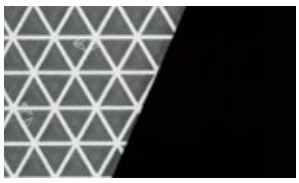
5 YEARS

5931M

5931



010 White/red



010 White/black

only 5931:

010 White/red

020 Yellow/red

029 Fl. yellow-green/red

038 Fl. orange/black

ORALITE® 5831

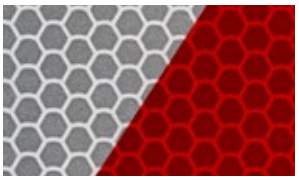
High Intensity Construction Grade

High intensity glass bead film specially designed for marking construction sites.

- Glass bead reflective technology
- Surface of flexible modified acrylic film
- Excellent adhesion to polyolefinic substrates
- The material can be printed according to customer requirements *(e.g. block or cone design printing)*.

5 YEARS

5831



010 White/red

020 Yellow/red

020 Yellow/black

ORALITE® 5431

Construction Grade

ORALITE® glass bead film designed for production of construction zone signs

- Glass bead reflective technology
- With a surface of cast PVC copolymer
- Excellent adhesion to polyolefinic substrates
- The material can be printed according to customer requirements *(e.g. block or cone design printing)*.

4 YEARS

5431

010 White/red

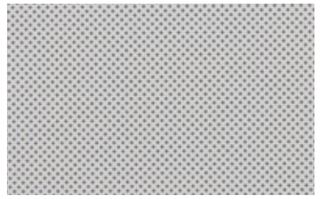
020 Yellow/black

ORALITE® 5238M
Prismatic Economy Grade

ORALITE® prismatic film for easy manufacturing of foldable signs

- Prismatic reflective technology
- PVC construction

5238M



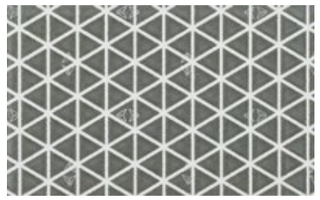
010 White

ORALITE® 5938MFlex
Prismatic Construction Grade

ORALITE® prismatic reflective film for easy production of foldable signs, high-visibility snow poles and other construction zone signs. For additional durability and flexibility.

- Prismatic reflective technology
- TPU construction

5938MFlex



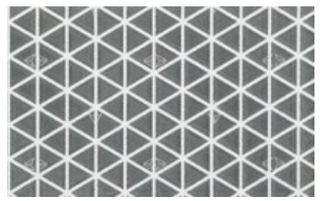
010 White

ORALITE® 5930MFlex
Premium Construction Grade

ORALITE® prismatic film designed for production of high-visibility barricades and construction zone signs

- Prismatic reflective technology
- Flexibility enables excellent conformability to various surfaces
- Surface of specially treated PVC film
- Excellent adhesion to polyolefinic substrates

5930MFlex



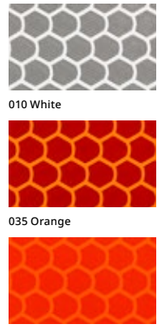
010 White

ORALITE® 5930
Prismatic Construction Grade

ORALITE® prismatic film designed for production of high-brightness barricades and construction zone signs

- Prismatic reflective technology
- Surface of specially treated PVC film
- Excellent adhesion to polyolefinic substrates

5930



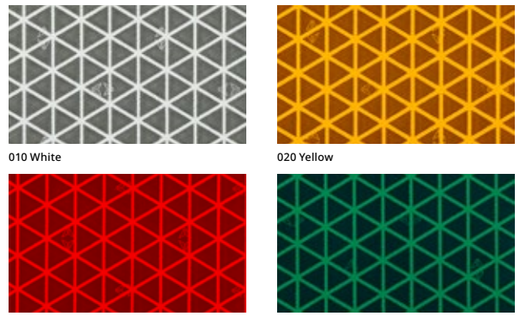
010 White
020 Yellow
030 Red
035 Orange
029 Fl. yellow-green
037 Fl. yellow
038 Fl. orange

ORALITE® 5930M
Prismatic Construction Grade

ORALITE® prismatic film designed for production of high-visibility barricades and construction zone signs

- Prismatic reflective technology
- Surface of specially treated PVC film
- Excellent adhesion to polyolefinic substrates

5930M



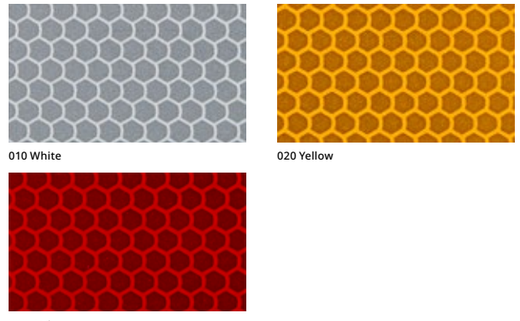
010 White
020 Yellow
030 Red
060 Green

ORALITE® 5830
High Intensity Construction Grade

High intensity glass bead film designed for production of barricades and construction zone signs

- Glass bead reflective technology
- Surface of flexible modified acrylic film
- Excellent adhesion to polyolefinic substrates

5830



010 White
020 Yellow
030 Red

ORALITE® 5430
Construction Grade

ORALITE® glass bead film designed for production of construction zone signs

- Glass bead reflective technology
- With a surface of cast PVC copolymer
- Excellent adhesion to polyolefinic substrates

5430

010 White

020 Yellow

030 Red

ORALITE® 5960
High Intensity Prismatic Construction Grade

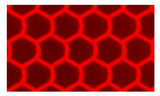
ORALITE® prismatic film designed for temporary traffic signs, guidance devices and warning markings

- Prismatic reflective technology
- Surface of UV stabilised acrylic
- Adhesive: solvent polyacrylate, permanent adhesive

5960

010 White

020 Yellow


030 Red

035 Orange

050 Blue

060 Green

080 Brown

029 Fl. yellow-green

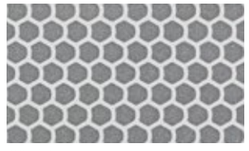
038 Fl. orange

ORALITE® 5860
High Intensity Construction Grade

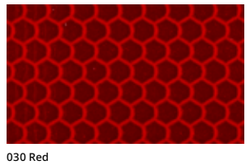
ORALITE® glass bead film designed for temporary traffic signs, guidance devices and warning markings

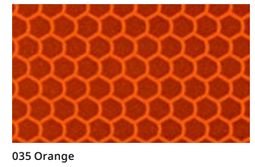
- Glass bead reflective technology
- Surface of UV stabilised acrylic

5860

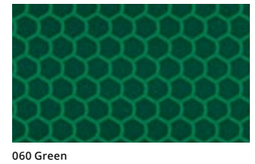

010 White

020 Yellow


030 Red


035 Orange

050 Blue


060 Green

ORALITE® 5021
Economy Cal

ORALITE® 5021 Economy Cal with a glossy surface specially developed for temporary applications on ORALITE® reflective films

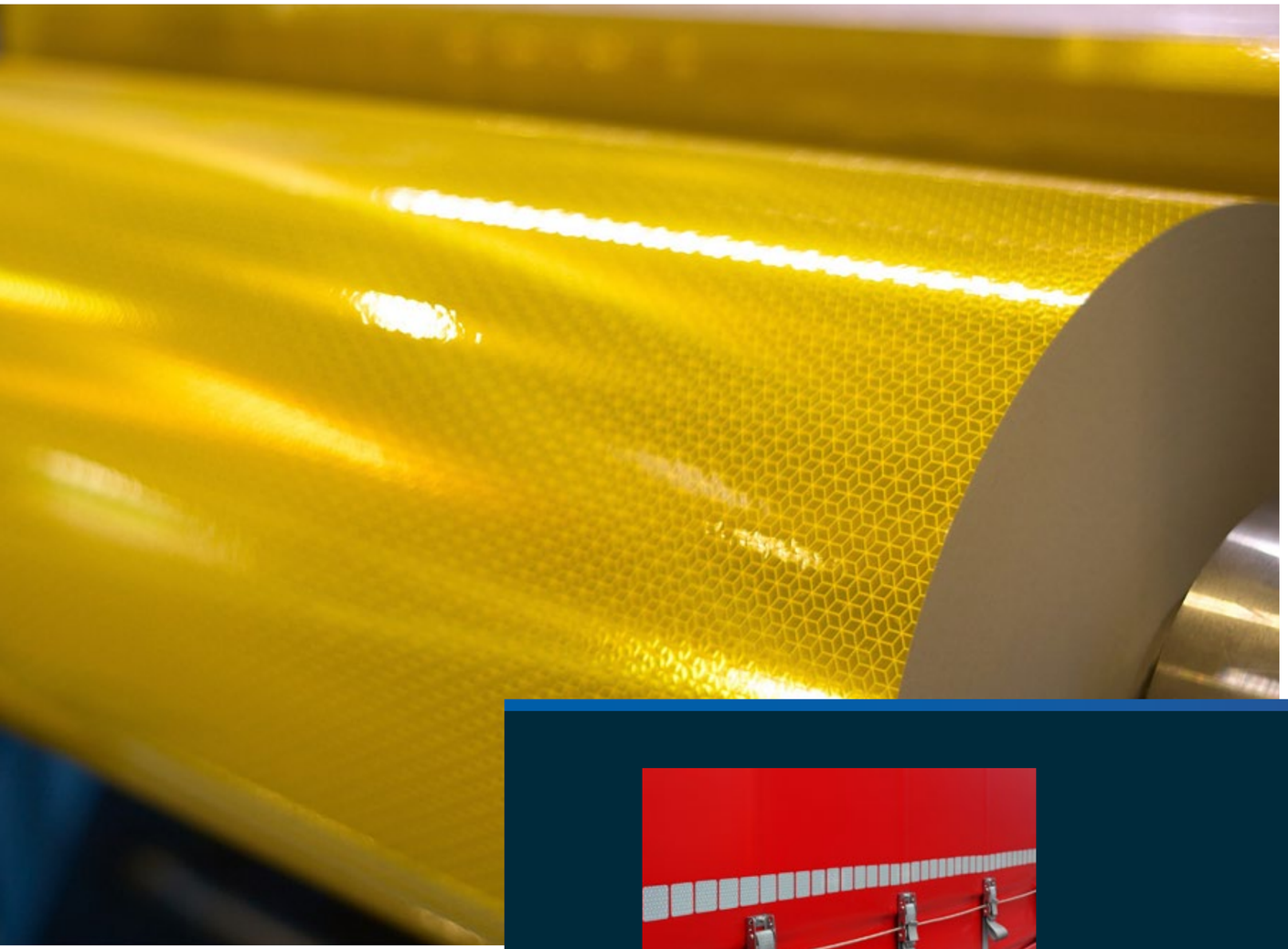
- Soft PVC
- Adhesive: removable polyacrylate

5021

000 Transparent

070 Black

Reflective Solutions



Reflective Solutions

ORAFOL is one of the world's leading developers and manufacturers of retroreflective solutions. Under the ORALITE® brand, high-performance reflective films and tapes based on prism and glass bead technology are offered worldwide for a wide range of applications.

Reflective Films

ORALITE® reflective films are designed to produce temporary and permanent traffic signs, as well as compliant vehicle markings. Various reflection classes and technologies allow precise alignment with national standards and specific project requirements.

Reflective Tapes

ORALITE® reflective tapes deliver excellent retrore-flective performance, improving visibility and safety in personal safety, even at long distances and in challenging lighting or weather conditions.

Printing Technology

Comprehensive services in digital and screen printing are supported by accessories such as protective laminates and application tapes, ensuring efficient processing and long-lasting durability.

Learn more about Reflective Solutions.

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