

Graphic Solutions

Caravan Materials



Engineered to Achieve Perfection™

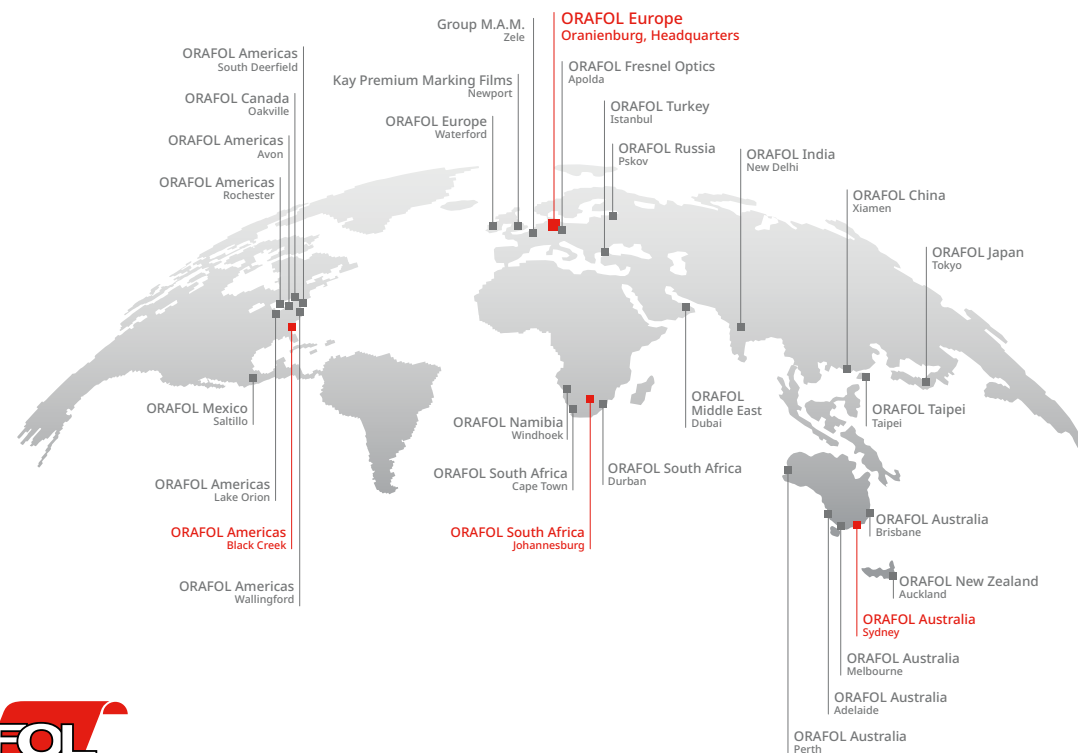


ORAFOL Europe GmbH

Headquarters and production facility

ORAFOL is one of the world's leading manufacturers of innovative self-adhesive graphic films, reflective materials and adhesive tape systems. The international ORAFOL Group is headquartered just outside the city gates of Berlin, in Oranienburg.

ORAFOL's Worldwide Locations



Caravan Materials

ORAFOL offers the market's largest range of high quality graphic films for caravans. Explore the range and unleash your creativity.

Made in Germany.

- 5 **Digital Printing Films**
- 5 ORAJET® 3961/3961RA – Caravan Film Premium Cast – *RapidAir®*
- 5 ORAJET® 3106SG – Caravan Film
- 5 ORAJET® 3951/3951RA+ *ProSlide* – Premium Digital Printing Cast PVC
- 5 ORACAL® 952/952RA – Premium Cast – *RapidAir®*
- 6 **Plotter Films**
- 6 ORACAL® 961/961RA – Caravan Film Premium Cast – *RapidAir®*
- 6 ORACAL® 751C – High Performance Cast
- 6 ORACAL® 951 – Premium Cast
- 7 **Wrapping and Tuning with the ORACAL® 970 Series**
- 7 ORACAL® 970RA/970RA+ *ProSlide* – Premium Wrapping Cast – *RapidAir®* and *ProSlide* technologies
- 7 ORACAL® 970RA – Premium Shift Effect Cast – *RapidAir®*
- 7 ORACAL® 970RA – Premium Special Effect Cast – *RapidAir®*
- 7 ORACAL® 970RA – Premium Structure Cast
- 8 **Caravan Interiors**
- 8 ORACAL® 638 – Wall Art
- 8 **For Doming Applications**
- 8 ORACAL® 301F – Print Polyester
- 8 ORAJET® 3301F – Digital Printing Polyester
- 8 **ORAFOL® Cleaning and Care Products**
- 9 **ORAGUARD® Paint Protection Films**
- 9 ORAGUARD® 270, 285F, 2815GF, 2815GF+, 2815MF+
- 10–11 **Product Overview**



Example of ORAJET® 3106SG

Benefits of Vinyl Wrapping for Caravans

In the past it has been a challenge to apply decorations to the sides of caravans, due to the surfaces with the typically textured characteristics. This is no longer the case, and there are a lot of benefits to this technique versus varnish.

- Faster
- Cost effective
- Due to the fact that caravans are built in different materials (GRP, ABS, hammer finish varnish, etc.) it can be difficult to paint in the same colour, and wrapping is easier
- Environmentally friendly and better for the health of the installers
- Endless design possibilities
- The vinyl will protect the original paint

On www.orafol.com you can download full application and maintenance instructions, technical data sheets, information about product service life, climate zones, and much more.

Digital Printing Films

Application of printed designs on caravans opens the doors to unique designs, promotions / advertising, and the possibilities of fleet identification.

Caravan Film Premium Cast

ORAJET® 3961/3961RA

The glossy surface of these materials provide extra bright and vivid prints. **Recommended for special decorations on challenging surfaces (uneven, porous, or textured, e.g. hammer finish varnish).**

- Premium cast PVC film (55 micron)
- White, gloss
- Adhesive: solvent polyacrylate, permanent
It provides an aggressive initial tack and high final adhesion.
- Inkjet printing with solvent based inks, UV- or latex inks.
- Lamination: ORAGUARD® 290

Note for RA: The product should be worked in, cut and applied with an overlap at the edge, for more curved surfaces, or for corrugations and rivets.

The *RapidAir®* technology allows a rapid and bubble-free application.

Caravan Film

ORAJET® 3106SG

The satin-gloss finish of this material provides a very elegant look, and the relatively heavy thickness of the film makes it easy to apply. **Recommended for special decorations on challenging surfaces (uneven or porous).**

- Calendered high performance polymeric PVC film (100 micron)
- White, satin-gloss
- Adhesive: solvent polyacrylate, permanent.
It provides an aggressive initial tack and high final adhesion.
- Inkjet printing with solvent based inks, UV- or latex inks.
- Lamination: ORAGUARD® 215

Digital Printing Cast

ORAJET® 3951/3951RA+ *ProSlide*

For less difficult substrates

- Premium cast PVC film (55 micron)
- White and transparent, gloss (3951RA+ *ProSlide*: white)
- Extreme durability and dimensional stability in corrugations and on rivets
- Adhesive: Solvent polyacrylate, repositionable, permanent, grey and transparent (3951RA+ *ProSlide*: grey)
- Inkjet printing with solvent based inks, UV- or latex inks
- Lamination: ORAGUARD® 290, 290F, 293, 293F

Note for RA+ *ProSlide*: The product should be worked in, cut and applied with an overlap at the edge, for more curved surfaces, or for corrugations and rivets.

The *RapidAir®* technology allows a rapid and bubble-free application.

ORAJET® 952/952RA

Specially developed for use in high quality screen printing for lettering, marking and decoration, which have the highest requirements for durability and solidity.

- Premium cast PVC film (70 micron)
- Extreme durability and stability
- Excellent dimensional stability
- White and transparent in gloss finish (RA version: white)
- Adhesive: Solvent polyacrylate, permanent

The *RapidAir®* technology allows a rapid and bubble-free application.

Plotter Films

If a solid colour pattern is needed, these ORACAL® films are the ideal solution. The cast plotter films provide high quality and long durability, and are perfect for labelling and design elements (e.g. ornamental strips).

Caravan Film Premium Cast

ORACAL® 961/961RA

For special decorations on challenging surfaces (uneven, porous, or textured, e.g. hammer finish varnish) of caravans and trailers. Especially recommended for applications on low energy plastics (polyethylene, polypropylene), that require high resistance on long term. Ideal adjustment on surface structure. Suitable for thermal transfer printing (with resin ribbons).

- Premium cast PVC film (55 micron)
- White, black, silver grey and yellow, gloss
- Adhesive: modified solvent polyacrylate, permanent. It provides an aggressive initial tack and high final adhesion.
- Thermal transfer printing (with resin ribbons)

Note for RA: The product should be worked in, cut and applied with an overlap at the edge, for more curved surfaces, or for corrugations and rivets.

The *RapidAir®* technology allows a rapid and bubble-free application.

High Performance Cast

ORACAL® 751C

Suitable for uneven surfaces as well as for rivets and corrugations.

- High performance cast PVC film (60 micron)
- high gloss colours + matt black / white
- Adhesive: Solvent polyacrylate, permanent
- Thermal transfer printing (with resin ribbons)

Premium Cast

ORACAL® 951

Extreme durability and dimensional stability also in corrugations and on rivets.

- Premium cast PVC film (50 micron)
- high gloss colours + matt black / white
- Adhesive: solvent polyacrylate, permanent
- Thermal transfer printing (with resin ribbons)

Example of ORACAL® 751C



Engineered to Achieve Perfection™

Wrapping and Tuning with the ORACAL® 970 Series

ORACAL® 970RA/970RA+ *ProSlide*

Premium **Wrapping** Cast

The ideal film for wrapping of varnished parts.

- Multi-layered high performance PVC film (110 micron)
- Glossy and matt colours
- Supermatt available in black
- Large range of metallic colours
- Excellent dimensional stability and gloss retention
- Adhesive: Solvent polyacrylate, repositionable, permanent

Premium **Shift Effect** Cast

The shade shifting version of the classic ORACAL® 970 Series.

- Multi-layered, high performance cast PVC film (110 micron)
- Excellent dimensional stability and gloss retention
- Adhesive: Solvent polyacrylate, repositionable, permanent
- Multi-layered, high performance cast PVC film (110 micron)
- Glossy or matt finish
- Adhesive Solvent polyacrylate, repositionable, permanent

Premium **Special Effect** Cast

Same quality as standard ORACAL® 970 film but with a unique glitter effect.

Note for RA and RA+ *ProSlide*: The product should be worked in, cut and applied with an overlap at the edge, for more curved surfaces, or for corrugations and rivets. The *RapidAir®* technology allows a rapid and bubble-free application. The new *ProSlide* technology enables an easy and quick application due to its improved repositionability.

Premium **Structure** Cast

The ideal tuning film for adding special design effects to caravan parts, also for uneven and arched surfaces* also for interior applications

- Multi-layered high performance PVC film (150 micron)
- 4 structured optics
- Several colours each
- Adhesive: Solvent polyacrylate, repositionable, permanent

The *RapidAir®* technology allows a rapid and bubble-free application.

* not for heavily bent surfaces

ORACAL® 970 Product Guide

Product	Colour types
Premium Wrapping Cast	Solid colours
Premium Shift Effect Cast	Shade shifting colours
Premium Special Effect Cast	With glitter effect
Premium Structure Cast	tuning film with stuctured surfaces



ORACAL® 970 Premium Shift Effect Cast

Caravan Interiors

Vinyl decorations are ideal for the caravan cabin, with vast possibilities for creative designs even with exciting structured surfaces or special colour effects. The application is easy as furniture and construction parts do not need to be removed while refurbishing.

Wall Art

ORACAL® 638

For indoor applications such as markings, inscriptions and decorations.

- Soft PVC Film (80 micron)
 - matt surface
 - Conforms well with substrate
- Application tape: ORATAPE® LT95
 - Adhesive: Polyacrylate, removable

For Doming Applications

These top coated polyester films are particularly suited for first-class decorative labels like doming labels, name plates and technical plates. They possess an excellent dimensional stability, good long term ageing properties and may be applied to apolar and structured substrates.

Print Polyester

ORACAL® 301F

For screen printed decorative labels and doming applications.

- Polyester film (50 micron)
- White gloss, metallised chrome or chrome brushed
- Adhesive: modified solvent polyacrylate, permanent

Digital Printing Polyester

ORAJET® 3301F

For digitally printed decorative labels and doming applications.

- Polyester film (50 micron)
- Metallised chrome or chrome brushed
- Adhesive: Modified solvent polyacrylate, permanent

ORAFOL® Cleaning and Care Products

The series of ORAFOL® cleaning and care products have been specifically developed for proper surface treatment of the wrapping films from ORAFOL. All the products have been engineered to enable consistent, excellent results. With the ORAFOL® cleaning and care agents you can be sure that you are always working with professional treatment products for your caravan. The products are supplied in versions for glossy or matt surfaces.



Paint Protection Films von ORAFOL

ORAGUARD® Paint Protection Films

The highly transparent and almost invisible ORAGUARD® stone chip protection films are ideal surface protection solutions for sensitive painted automotive surfaces. Specially designed to effectively protect vehicle body parts against stone chipping.

Criteria	ORAGUARD® 2815GF+	ORAGUARD® 2815MF+	ORAGUARD® 2815GF	ORAGUARD® 270	ORAGUARD® 285F
Base Material	Polyurethan	Polyurethan	Polyurethan	PVC	Polyurethan
Thickness	160 µm	160 µm	160 µm	150 µm	50 µm
Stone-chip Protection	Best	Best	Best	Better	Good
Chemical Resistance	Highest	Highest	Highest	High	High
Stretchablility	Best	Best	Best	Good	Best
Stain Retention	Excellent with super-hydrophobic surface	Excellent with super-hydrophobic surface	Excellent	Good	Good
Gloss Level	Highest	Matte	Highest	High	High
Self-healing Properties	Best	Best	Best	Good	Better
Surface Finish	Gloss	Matte	Gloss	Gloss	Gloss
Service Life*	10 years	10 years	10 years	5 years	5 years

* Service life by specialist application under vertical outdoor exposure (standard central European climate)

Product Overview – Caravan Materials

Films	Product	Short name	Front material	Colours/surfaces Gloss (G), Satin-gloss (SG), Matt (M), Super matt (SM)	Adhesive	Printing	Lamination					Thickness	Adhesive Power*	Minimum application temperature	Temperature resistance
							ORAGUARD® 215	ORAGUARD® 290	ORAGUARD® 290F	ORAGUARD® 293	ORAGUARD® 293F				
Digital Printing	ORAJET® 3961	Caravan Film Premium Cast	Premium cast PVC film	White (G)	Solvent polyacrylate, permanent, with aggressive initial tack and high final adhesion, grey	Inkjet printing with solvent based inks, UV- or Latex inks		•				55 micron	30 N/25 mm	>+4° C	-50° C to +100° C
	ORAJET® 3961RA <i>RapidAir®</i>	Caravan Film Premium Cast	Premium cast PVC film	White (G)	Solvent polyacrylate, permanent, with aggressive initial tack and high final adhesion, grey The <i>RapidAir®</i> enables easy and quick application without air inclusion.	Inkjet printing with solvent based inks, UV- or Latex inks		•				55 micron	20 N/25 mm	>+4° C	-50° C to +100° C
	ORAJET® 3106SG	Caravan Film	Calendered high performance polymeric PVC film	White (SG)	Solvent polyacrylate, permanent, with high initial tack and high final adhesion.	Inkjet printing with solvent based inks, UV- or Latex inks	•					100 micron	28 N/25 mm	>+4° C	-50° C to +100° C
	ORAJET® 3951	Digital Printing Cast	Premium cast PVC film	White (G) Transparent (G)	Solvent polyacrylate, repositionable, permanent, grey or transparent	Inkjet printing with solvent based inks, UV- or Latex inks		•	•	•	•	55 micron	18 N/25 mm	> +8° C	-50° C to +100° C
	ORAJET® 3951RA+ <i>RapidAir®</i> <i>ProSlide</i>	Premium Digital Printing Cast PVC	Premium cast PVC film	White (G)	Solvent polyacrylate, repositionable, permanent, grey The <i>RapidAir®</i> enables easy and quick application without air inclusion.	Inkjet printing with solvent based inks, UV- or Latex inks		•	•	•	•	55 micron	14 N/25 mm	> +8° C	-50° C to +100° C
	ORACAL® 3301F	Digital Printing Polyester	Polyester film	Chrome Chrome brushed	Solvent polyacrylate, permanent	Digital printing with solvent based inks, UV- or Latex inks						50 micron	25 N/25 mm	> +8° C	-40° C to +120° C
Screen Printing	ORACAL® 301F	Print Polyester	Polyester film	White (G) Chrome Chrome brushed	Modified solvent polyacrylate, permanent	Screen printing and UV offset printing						50 micron	25 N/25 mm	> +8° C	
	ORACAL® 952	Premium Cast	Premium cast PVC film	White (G) Transparent (G)	Solvent polyacrylate, permanent	Screen printing, UV-offset printing and flexo printing						70 micron	18 N/25 mm	> +8° C	-50° C to +110° C
	ORACAL® 952RA <i>RapidAir®</i>	Premium Cast	Premium cast PVC film	White (G)	Solvent polyacrylate, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.	Screen printing, UV-offset printing and flexo printing						70 micron	16 N/25 mm	> +8° C	-50° C to +110° C
Plotter Films	ORACAL® 961	Caravan Film Premium Cast	Premium cast PVC film	White (G), Black (G), Silver grey (G), Yellow (G)	Modified solvent polyacrylate, permanent, with aggressive initial tack and high final adhesion.	Thermal transfer printing (with resin ribbons)						55 micron	30 N/25 mm	>+4° C	-50° C to +120° C
	ORACAL® 961RA	Caravan Film Premium Cast <i>RapidAir®</i>	Premium cast PVC film	White (G), Black (G). Silver grey (G), Yellow (G)	Modified solvent polyacrylate, permanent, with high final adhesion. The <i>RapidAir®</i> enables easy and quick application without air inclusion.	Thermal transfer printing (with resin ribbons)						55 micron	20 N/25 mm	>+4° C	-50° C to +120° C
	ORACAL® 751C	High Performance Cast	High performance cast PVC film	Colours (G) White (G,M) Black (G,M)	Solvent polyacrylate, permanent	Glossy surface is ideal for thermal transfer printing (with resin ribbons)						60 micron	18 N/25 mm	> +8° C	-50° C to +120° C
	ORACAL® 951	Premium Cast	Premium cast PVC film	Colours (G) White (G,M) Black (G,M)	Solvent polyacrylate, permanent	Glossy surface is ideal for thermal transfer printing (with resin ribbons)						50 micron	18 N/25 mm	> +8° C	-50° C to +120° C
Wrapping	ORACAL® 970RA <i>RapidAir®</i>	Premium Wrapping Cast Shift Effect Special Effect Structure	Multi-layered, high performance cast PVC film	Colours (G, M, SM)	Solvent polyacrylate, <i>RapidAir®</i> adhesive, repositionable, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.							110 micron	16 N/25 mm	> +15° C	-50° C to +120° C
	ORACAL® 970RA+ <i>RapidAir®</i> <i>ProSlide</i>	Premium Wrapping Cast Shift Effect Special Effect	Multi-layered, high performance cast PVC film	Colours (G, M, SM)	Solvent polyacrylate, <i>RapidAir®</i> adhesive, repositionable, permanent, transparent The <i>RapidAir®</i> technology enables easy and quick application, without air inclusion. The new <i>ProSlide</i> technology enables an easy and quick application due to its improved repositionability.							110 micron	12 N/25 mm	> +15° C	-50° C to +120° C
Stone Guard	ORAGUARD® 270	Stone Guard Film	Polymeric PVC film	Transparent (G)	Solvent polyacrylate, permanent							150 micron	20 N/25 mm	> +10° C	-40° C to +110° C
	ORAGUARD® 285F	Stone Guard Film	Polyurethane film	Transparent (G)	Solvent polyacrylate, permanent							50 micron	18 N/25 mm	> +10° C	-40° C to +100° C
	ORAGUARD® 2815GF+	Stone Guard Film	Top-coated polyurethane film	Transparent (G) with super-hydrophobic surface	Solvent polyacrylate, permanent							160 micron	17 N/25 mm	> +10° C	-40° C to +100° C
	ORAGUARD® 2815MF+	Stone Guard Film	Top-coated polyurethane film	Transparent (G) with super-hydrophobic surface	Solvent polyacrylate, permanent							160 micron	17 N/25 mm	> +10° C	-40° C to +100° C
	ORAGUARD® 2815GF	Stone Guard Film	Polyurethane film	Transparent (G)	Solvent polyacrylate, permanent							160 micron	17 N/25 mm	> +10° C	-40° C to +100° C

* after 24 hours applied to stainless steel



Engineered to Achieve Perfection™

Caravan Materials

ORAFOL Europe GmbH
Orafolstraße 1, D-16515 Oranienburg, Germany

Tel: +49 (0)3301 864-0 | graphic.solutions@orafol.de

Find out more about our products at:
www.orafol.com · www.orafoleurope.com

