

Graphic Innovations

# 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.**

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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](http://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.

## CAD/CAM 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)
- 117 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)
- 139 high gloss colours + matt black / white
- Adhesive: solvent polyacrylate, permanent
- Thermal transfer printing (with resin ribbons)

Example of ORACAL® 751C



# Wrapping and Tuning with the ORACAL® 970 Series

## ORACAL® 970/970RA

### Premium **Wrapping** Cast

The ideal film for wrapping of varnished parts.

- Multi-layered high performance PVC film (110 micron)
- 96 vivid standard colours
- 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)
- 9 colours, gloss and matt
- Excellent dimensional stability and gloss retention
- Adhesive: Solvent polyacrylate, repositionable, permanent
- Multi-layered, high performance cast PVC film (110 micron)
- Glossy or matt finish
- 8 colours
- 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:** 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.

## ORACAL® 970 Product Guide

Product	Colour types
Premium <b>Wrapping</b> Cast	Solid colours
Premium <b>Shift Effect</b> Cast	Shade shifting colours
Premium <b>Special Effect</b> Cast	With glitter effect



ORACAL® 970 Premium Shift Effect Cast

## ORACAL® 975

### 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)
- 5 structured optics
- Several colours each
- Adhesive: Solvent polyacrylate, repositionable, permanent
- Black Carbon: also available in a *RapidAir*® (RA) version.

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

\* not for heavily bent surfaces

# 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)
- 57 matt colours
- Conforms well with substrate
- Application tape: ORATAPE® LT95
- Adhesive: Polyacrylate, removable

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## 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

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## 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.





## Stone Guard by ORAFOL

### ORAGUARD® Stone Guard 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	NEW!	ORAGUARD® 2815GF	ORAGUARD® 283/283F	ORAGUARD® 280/280F	ORAGUARD® 270	ORAGUARD® 285F
	Base Material		<b>Polyurethan</b>	Polyurethan	Polyurethan	PVC
Thickness		<b>160µm</b>	130µm	200µm	150µm	50µm
Stone-chip Protection		<b>Best</b>	Better	Best	Better	Good
Chemical Resistance		<b>Highest</b>	High	High	High	High
Stretchability		<b>Best</b>	Best	Better	Good	Best
Stain Retention		<b>Excellent</b>	Good	Good	Good	Good
Gloss Level		<b>Highest</b>	High	High	High	High
Self-healing Properties		<b>Best</b>	Better	Better	Good	Better
Service Life*		<b>10 years</b>	5 years	7 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
Digital Printing	<b>ORAJET® 3961</b>	Caravan Film Premium Cast	Premium cast PVC film	White (G)	Solvent polyacrylate, permanent, with aggressive initial tack and high final adhesion, grey
	<b>ORAJET® 3961RA</b>	Caravan Film Premium Cast <i>RapidAir®</i>	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.
	<b>ORAJET® 3106SG</b>	Caravan Film	Calendered high performance polymeric PVC film	White (SG)	Solvent polyacrylate, permanent, with high initial tack and high final adhesion.
	<b>ORAJET® 3951</b>	Digital Printing Cast	Premium cast PVC film	White (G) Transparent (G)	Solvent polyacrylate, repositionable, permanent, grey or transparent
	<b>ORAJET® 3951RA+ ProSlide</b>	Premium Digital Printing Cast PVC <i>RapidAir®</i>	Premium cast PVC film	White (G)	Solvent polyacrylate, repositionable, permanent, grey The <i>RapidAir®</i> enables easy and quick application without air inclusion.
	<b>ORACAL® 3301F</b>	Digital Printing Polyester	Polyester film	Chrome Chrome brushed	Solvent polyacrylate, permanent
Screen Printing	<b>ORACAL® 301F</b>	Print Polyester	Polyester film	White (G) Chrome Chrome brushed	Modified solvent polyacrylate, permanent
	<b>ORACAL® 952</b>	Premium Cast	Premium cast PVC film	White (G) Transparent (G)	Solvent polyacrylate, permanent
	<b>ORACAL® 952RA</b>	Premium Cast <i>RapidAir®</i>	Premium cast PVC film	White (G)	Solvent polyacrylate, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.
CAD/CAM	<b>ORACAL® 961</b>	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.
	<b>ORACAL® 961RA</b>	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.
	<b>ORACAL® 751C</b>	High Performance Cast	High performance cast PVC film	117 colours (G) White (G,M) Black (G,M)	Solvent polyacrylate, permanent
	<b>ORACAL® 951</b>	Premium Cast	Premium cast PVC film	139 colours (G) White (G,M) Black (G,M)	Solvent polyacrylate, permanent
Wrapping	<b>ORACAL® 970</b>	Premium Wrapping Cast	Multi-layered, high performance cast PVC film	75 colours (G) 21 colours (M) Black (G,M,SM)	Solvent polyacrylate, repositionable, permanent
	<b>ORACAL® 970RA</b>	Premium Wrapping Cast <i>RapidAir®</i>	Multi-layered, high performance cast PVC film	77 colours (G) 21 colours (M)	Solvent polyacrylate, repositionable, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.
	<b>ORACAL® 970</b>	Premium <b>Shift Effect</b> Cast	Multi-layered, high performance cast PVC film	9 colours (G, M)	Solvent polyacrylate, repositionable, permanent
	<b>ORACAL® 970RA</b>	Premium <b>Shift Effect</b> Cast <i>RapidAir®</i>	Multi-layered, high performance cast PVC film	9 colours (G, M)	Solvent polyacrylate, repositionable, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.
	<b>ORACAL® 970</b>	Premium <b>Special Effect</b> Cast	Multi-layered, high performance cast PVC film	4 colours (G) 2 colours (M)	Solvent polyacrylate, repositionable, permanent
	<b>ORACAL® 970RA</b>	Premium <b>Special Effect</b> Cast <i>RapidAir®</i>	Multi-layered, high performance cast PVC film	8 colours (G) 2 colours (M)	Solvent polyacrylate, repositionable, permanent The <i>RapidAir®</i> enables easy and quick application without air inclusion.
	<b>ORACAL® 975</b>	Premium <b>Structure</b> Cast	Multi-layered, high performance cast PVC film	5 structures in a range of colours	Solvent polyacrylate, repositionable, permanent
Stone Guard	<b>ORAGUARD® 270</b>	Stone Guard Film	Polymeric PVC Film	Transparent (G)	Solvent polyacrylate, permanent
	<b>ORAGUARD® 280 / 280F</b>	Stone Guard Film	Polyurethane Film	Transparent (G)	Solvent polyacrylate, permanent
	<b>ORAGUARD® 283 / 283F</b>	Stone Guard Film	Polyurethane Film	Transparent (G)	Solvent polyacrylate, permanent
	<b>ORAGUARD® 285F</b>	Stone Guard Film	Polyurethane Film	Transparent (G)	Solvent polyacrylate, permanent
	<b>ORAGUARD® 2815GF</b>	Stone Guard Film	Polyurethane Film	Transparent (G)	Solvent polyacrylate, permanent

Printing	Lamination						Thickness	Adhesive Power*	Minimum application temperature	Temperature resistance	Widths (mm)		Lengths (m)
	ORAGUARD® 215	ORAGUARD® 290	ORAGUARD® 290F	ORAGUARD® 293	ORAGUARD® 293F	ORAGUARD® 297F							
Inkjet printing with solvent based inks, UV- or Latex inks		•					55 micron	30 N/25 mm	>+4° C	-50° C to +100° C	1370 1520		50
Inkjet printing with solvent based inks, UV- or Latex inks		•					55 micron	20 N/25 mm	>+4° C	-50° C to +100° C	1370 1520		50
Inkjet printing with solvent based inks, UV- or Latex inks	•						100 micron	28 N/25 mm	>+4° C	-50° C to +100° C	1370		50
Inkjet printing with solvent based inks, UV- or Latex inks		•	•	•	•		55 micron	18 N/25 mm	> +8° C	-50° C to +100° C	760 1050	1370 1520	50
Inkjet printing with solvent based inks, UV- or Latex inks		•	•	•	•		55 micron	14 N/25 mm	> +8° C	-50° C to +100° C	760 1050	1370 1520	50
Digital printing with solvent based inks, UV- or Latex inks							50 micron	25 N/25 mm	> +8° C	-40° C to +120° C	1370		25 50
Screen printing and UV offset printing							50 micron	25 N/25 mm	> +8° C		1000 1260		50
Screen printing, UV-offset printing and flexo printing							70 micron	18 N/25 mm	> +8° C	-50° C to +110° C	1000 1260	1400	50
Screen printing, UV-offset printing and flexo printing							70 micron	16 N/25 mm	> +8° C	-50° C to +110° C	1000 1260	1400	50
Thermal transfer printing (with resin ribbons)							55 micron	30 N/25 mm	>+4° C	-50° C to +120° C	1260		50
Thermal transfer printing (with resin ribbons)							55 micron	20 N/25 mm	>+4° C	-50° C to +120° C	1260		50
Glossy surface is ideal for thermal transfer printing (with resin ribbons)							60 micron	18 N/25 mm	> +8° C	-50° C to +120° C	378 500 630	1000 1260	50
Glossy surface is ideal for thermal transfer printing (with resin ribbons)							50 micron	18 N/25 mm	> +8° C	-50° C to +120° C	378 500 630	1000 1260	25 50
							110 micron	18 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							110 micron	16 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							110 micron	18 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							110 micron	16 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							110 micron	18 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							110 micron	16 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							150 micron	22 N/25 mm	> +15° C	-50° C to +120° C	1520		25 50
							150 micron	20 N/25 mm	> +10° C	-40° C to +110° C	1260, 1400, 1520		50
							200 micron	22 N/25 mm	> +10° C	-40° C to +100° C	1260 1520		25 50
							130 micron	18 N/25 mm	> +10° C	-40° C to +100° C	283: 1260, 1520 283F: 1520		25 50
							50 micron	18 N/25 mm	> +10° C	-40° C to +100° C	1370 1520		25 50
							160 micron	17 N/25 mm	> +10° C	-40° C to +100° C	760 1520		5 15 50

\* after 24 hours applied to stainless steel



Engineered to Achieve Perfection™

# Caravan Materials

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