BÜFA®-rPET Resins

Artikel name	Art No	Industry					Aplication				Description
		Construction	Transportation	Railway	Sanitary	Marine	(HLU) Hand-lay-Up	RTM	Infusion	Spray Up	
BÜFA®-Resin UK UP 1004	588-1004	x	x				x				LSE Extended geltime (22 min)
BÜFA®-Resin UK UP 1037	588-1037						x				Thin and thick laminate Fully promoted Thix Medium viscosity
BÜFA®-Resin UK UP 1016 RTM	588-1016	x	x					x			White version 30 % recycled PET Internal release system Low viscosity short gel time for Small parts Good tough physical properties 75 °C HDT Quick cure 90 minutes
BÜFA®-Resin UK UP 1017 RTM	588-1017	x	x					x			Black version 30 % recycled PET Internal release system Low viscosity short gel time for small parts Good tough physical properties 75 °C HDT Quick cure 90 minutes
BÜFA®-Resin UK UP 1025 RTM	588-1025							x			Ultra low viscosity Fast gel time Designed with AAP peroxide
BÜFA®-Resin UK UP 1027 RTM	588-1027	x	x			x		x			White version 30% recycled PET Low viscosity Good tough physical properties 90 °C HDT Quick cure 90 minutes
BÜFA®-Resin UK UP 1033 RTM	588-1033	x	x			x		x			Black version 30 % recycled PET Low viscosity Good tough physical properties 90 °C HDT Quick cure 90 minutes
BÜFA®-Resin UP 0119 ACR	700-0119				x	x	x			x	Filled SU-version 15 % recycled PET Low styrene emission Adhesion to acrylic sheets
BÜFA®-Resin UP 120	700-0120				x	x	x			x	Filled SU-version 15 % recycled PET Very low styrene emission
BÜFA®Firestop S 400	716-0400	x	x	x					x		FR - Infusion Similar to S 425 and S 440
BÜFA®Firestop S 405	716-0405	x	x	x			x	x		x	FR - HLU / SU Similar to 8175
BÜFA®Firestop S 415	716-0415	x	x	x			x		x		FR - HLU Similar to S 430

The Complete Range for the User of Composite Materials


UP- & VE-Resins, Epoxy Resin Systems


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Reinforcements, Core & Non-woven Materials


Fire Retardant Systems


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Foaming Resin Systems


BÜFA Tec Machine Technology

BÜFA
New chemistry.

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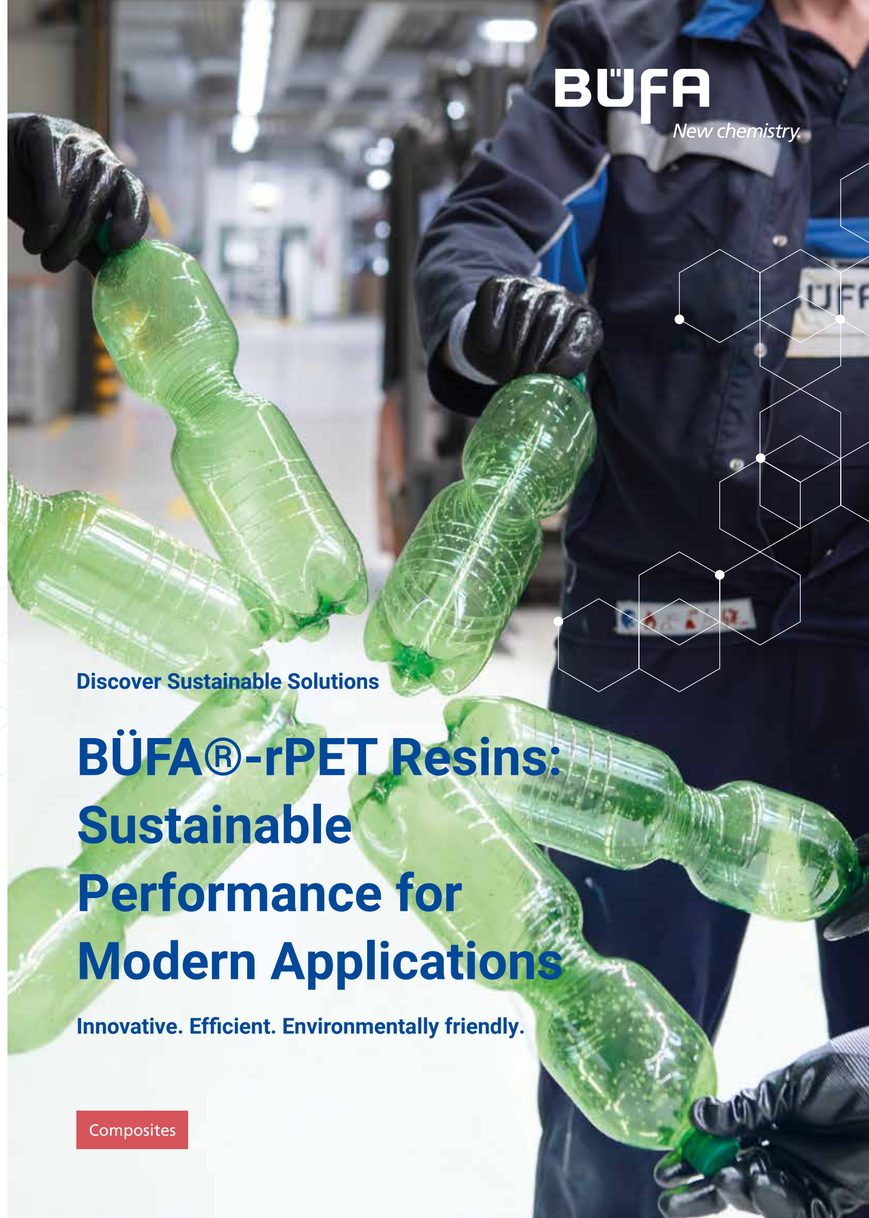

Discover Sustainable Solutions

BÜFA®-rPET Resins: Sustainable Performance for Modern Applications

Innovative. Efficient. Environmentally friendly.

Composites

What are rPET Resins?

Our PET-based resins (rPET) offer a sustainable alternative to conventional UP resins. They consist mainly of recycled post-consumer PET and enable resource-saving production with a significantly reduced carbon footprint.

Thanks to state-of-the-art technology, BÜFA®-rPET resins combine outstanding mechanical properties with an environmentally friendly material base - perfect for applications in marine, construction, transport, sanitary, pultrusion and industrial composites.

Advantages of BÜFA®-rPET Resins at a Glance

Sustainability:
- Up to 15 % lower CO_2 footprint compared to classic UP resins (Ortho, DCPD, Maleic).
- High proportion of recycled PET reduces the use of fossil raw materials.
- Supporting a circular economy through sensible recycling of plastic waste.

Outstanding Performance:
- Comparable or even better mechanical properties than conventional resins.
- High resistance to chemicals, moisture and UV radiation.
- Versatile use in heavy-duty applications.

Future-proof & Certifiable:
- Produced from post-consumer waste
- Compatible with existing production processes - simple changeover possible.
- Fulfils the highest requirements for environmental standards and sustainable production.

Advantages

Don't Land fill it rPet it! Save around 4,200 plastic bottles going to land waste per ton of resin, re use and make it better than before with better chemical and physical properties for the same application, a win for the environment and a win for the manufacturer and consumer.
Sanitary market switch to rPet you can increase filler loading using Ca3 that already has sustainable ISO 14021 a match made for the planet.

Case Study Quantum Mouldings, AOC and BÜFA Composites

Sustainable rPET-based Formulations for High-Quality Automotive Parts

AOC and BÜFA have supported Quantum Mouldings in the production of high-quality pop-up roof modules for motorhomes. The new BÜFA®-Resin UK UP 1033 RTM (Black) and BÜFA®-Resin UK UP 1027 RTM (white) combined with BÜFA®-Neogel-3000 series gelcoats were used. The use of rPET-based formulations not only provides mechanical strength and great part aesthetics, but also helps to reduce the environmental footprint - a feature that is highly appreciated by customers and consumers.

Quantum Mouldings is an established manufacturer of composite components used in the automotive, transport, industrial, marine and signage sectors.
The company specialises in medium-sized production runs, typically 1,500 to 5,000 parts per year. Its plant in Kidderminster (UK) utilises several composite processing techniques, including RTM, hand lay-up and spray-up. Quantum Mouldings has a reputation for delivering high quality parts that are manufactured with high accuracy and dimensional stability.

Performance Requirements

One of the products manufactured by Quantum Mouldings is a ‚pop-top' lifting roof module used in the aftermarket for converting conventional vans of various brands into motorhomes. The optical parts need to combine great colour and surface finish with high mechanical integrity and durability.

„In hot summers, the parts can heat up to over 80 °C, especially if they are dark and black in colour," explains Mark Young, General Manager of Quantum Mouldings. „It is therefore very important that the parts do not deform and retain their shape when exposed to heat. In addition, the thermal expansion should roughly correspond to the expansion of the steel of the surrounding roof parts."

Robustness of Processing

For this demanding application, the company uses a combination of BÜFA®-Resin UK UP 1033 RTM (Black) & BÜFA®-Resin UK UP 1027 RTM (white) a recycled PET-based formulation used for RTM and vacuum infusion, and Neogel®-3000 series gelcoats from BÜFA. Quantum Mouldings found that the resin was characterised by low shrinkage, resulting in low warpage and good dimensional predictability during processing.

„We have found that the BÜFA®-Resin UK UP 1033 RTM & BÜFA®-Resin UK UP 1027 RTM has a lower exotherm than the products we have used in the past. This contributes to longer tool life, which has a positive impact on cost savings and tool availability," adds Mark Young. „Compared to DCPD resins, the parts can be demoulded more easily and quickly. The flexibility to cure the resin with different peroxide types and concentrations allows us to use this product in moulds of varying size and complexity."

quantummouldings.co.uk

Better Performance in the Area of Sustainability

The products BÜFA®-Resin UK UP 1033 RTM & BÜFA®-Resin UK UP 1027 RTM are based on recycled PET, most of which comes from post-consumer waste. Around 4,200 used PET bottles are used for every tonne of product, ensuring the efficient reuse of a valuable raw material. The products have also been certified by Lloyd's for the neutral version Synolite 4600-G-1 „We are seeing a lot of interest from our customers in using these rPET-based formulations for their composite parts," comments Fons Harbers, Vice President Marketing and Sales at AOC EMEA. „Even though the production of rPET-based products requires more effort and additional process steps, we believe it is worth it and helps to reduce the carbon footprint of our customers' products."

We enjoy working as a team with Quantum Mouldings and AOC to produce parts with a balance of performance and quality at a competitive system cost," says Eddie Putwain, General Manager of BÜFA Composites UK. „The demand for reliable products that are also environmentally friendly will continue to grow over the coming years. That's why we're ready to help our customers take big steps to improve sustainability performance.