

Expertise Plus Information

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BTC is your partner for thermoset composites

For years, lightweight construction has been a growth market across all industry sectors. This is particularly apparent in all disciplines of mobility, ranging from the private car to the space rocket. After all, when the weight is reduced, costs for fuel or electricity are also lowered.

Heat-resistant composites, also known as thermoset or fibrous composite materials, are an important driver in the field of lightweight construction. Base substances, such as polyester and epoxy resins, obtain their high-quality properties partly thanks to the right additives. These are not only contained in the composite itself, but also in the coatings used, for example.



“BTC is in tune with the needs of our composite producers. We can therefore offer a variety of formulation solutions for the manufacturing of matrices and components,” comments Denis Falaize, European Coordinator Composites Industry at BTC.

Air Release and dispersing agents

On the one hand, the variety of possible applications makes the materials more effective. “However, in many cases, the speciality chemicals from BTC also help customers adhere to regulatory requirements, such as those for environmental protection,” says D.Falaize. There is a broad spectrum of possible additives.

- Air release, for example, facilitate the formulation of high-performance thermoset resins, which are then applied to reinforcement.
- The air release agent Efka® PB 2744, on the other hand, is perfectly suited for both unsaturated polyester and epoxy resins, with or without solvents.
- The latest innovation in dispersing agent is Efka® FA 4611, developed specifically for manufacturing Sheet Molding Applications, Bulk Molding Applications when high filler loading is required. With its absence of volatile organic compound (VOC) content, the product meets current environmental regulations in the construction and in the automotive industry.

Smooth and UV-stable surfaces

- Composites formulators achieve a particularly even surface when adding the Efka® FL 3785 levelling agent to their resin compound. This is used for unsaturated polyester, polyurethane as well as gelcoats.
- To ensure that composites remain bright for a long period of time even when under the influence of the weather, the use of Tinuvin® 400 is recommended. This light stabiliser offers the best cost effective UV protection available today.

For all types of thermoset composites

Our additive solutions for composites cover all relevant materials:

- Unsaturated polyester resins
- Epoxy resins
- Polyurethanes
- Acrylics
- UV Curable Systems

Our expert

Denis Falaize has been working for BTC for almost ten years. He works with pigments, resins and additives on a daily basis. These topics were also the focus during his master's degree course in chemical engineering. His passion for chemical processes and their creative combinations was what motivated him to pursue a career in this area: "It's all about achieving the desired effect from a combination of raw materials and additives – which is always an interesting challenge." In his current role, he particularly enjoys being able to advise customers in a solution-oriented manner: "It's great when I can pass on my knowledge from my job and from university. And of course I am always learning new things in our daily technical discussions."



You can find more information on our range of speciality chemicals for composites and contact your local BTC contact partner directly using the [Solution Finder](#).