

## New composite systems for lightweight automotive parts

**BASF informed at JEC about new Baxxodur and Elastolit solutions based on epoxy and PU.**

Both systems are said to feature significantly reduced cycle times in RTM processes, with demoulding times of less than 5 min.

Their key features are their curing mechanisms. They can be processed much longer than conventional products and still cure much faster if required. As a result, the fibres can be impregnated perfectly with these low-viscosity resins, which avoids the formation of “dry” areas that might negatively affect the mechanical properties of the finished part. On the other hand, the high speed of the complete reaction facilitates short cycle times. Both systems are self-releasing and suitable for processing on common high and low-pressure equipment.

By combining fibre-reinforced structural components with lightweight PU foam cores, high-quality low weight composite structures with very good specific component stiffness and good isolating properties can be produced. The specially developed **Elastolit D** systems are characterised by high compression strength and temperature resistance combined with low density.

Fibre-reinforced components or composite mouldings for commercial vehicles, in particular, can be realised cost-effectively by open-mould spray application used in the PU composite spray molding (PUR-CSM) process. In its **Elastocoat C** system, BASF has developed an in-mould coating material for use on commercial high-pressure CSM equipment.

As well as high-quality fibre-reinforced composite parts, its applications include the reinforcement of metal faceplates or thermoforming film. With part-specific requirements determining the structure of the sandwich, compact and foamed PU systems were developed that are reinforced as required by adding short or long glass fibres. Elastocoat C for CSM processing is solvent-free and shows good mechanical properties and flow properties and ease of handling. A system based on renewables is available as an additional option.

BASF also presented at JEC the **Relest Wind RepKit**, a repair kit for rotor blades.

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