



## Product Information

# ULTRASIM™

A Computer-aided Engineering (CAE) tool for low mass structural designs from fiber reinforced engineering plastics

Making the lightest possible part at the desired performance level is a key technology driver in the aerospace market. BASF has developed a new proprietary software module, ULTRASIM to meet this challenge. ULTRASIM is a predictive tool which can help you design the most efficient part when using fiber reinforced injection molded thermoplastics. ULTRASIM takes into account fiber orientation resulting in a more accurate prediction of a component's mechanical, thermal and dimensional behavior.

### Features

- Highly accurate predictive CAE tool
- Reduce development time and tolling
- Minimize parts count and complexity
- Mass optimization
- Can be tailored to customer requirements

### ULTRASIM in aerospace applications

Are you looking for a way to design your part accurately AND with the right material? Then, ULTRASIM is the key to your success.

The direct advantage of ULTRASIM is the reduced development time and the number of prototype tools required in the development of a new product. It is also

possible to create designs with reduced parts count and complexity, while optimizing overall mass. ULTRASIM starts with the appropriate BASF material and then applies the associated material models while accounting for the real world molding process to develop accurate finite element models. With ULTRASIM, we can help you tailor the materials, geometry, and gating locations – for efficient, lightweight components and for your long-term market success!

As a strategic partner of BASF, you can access this CAE tool in each phase of your product development. Setting the trends in your business with BASF – ULTRASIM can be a pivotal factor.

## **ULTRASIM and plastics in aerospace — when freedom of design, time-to-market and cost savings come together**

ULTRASIM is an important building block in a flexible business model that can be tailored to individual customer requirements. Weight, cost savings, and development speed are important in the aerospace industry, e.g. when developing new engineering plastics seating components. ULTRASIM can make it happen quickly and accurately.

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