First top mount made of Cellasto® and Ultramid®

Unique combination of polyurethane bearing with polyamide housing saves 25% weight
First top mount completely made of plastic

For next generation shock absorbers: unprecedented combination of lightweight, functional integration, pleasant acoustics and vibration damping

→ More CO₂ savings, comfort and safety

Advantages of the component:
- 25 percent lighter than conventional aluminum die-cast versions with rubber
- Functional integration of top mount, jounce bumper and dust tube
- Best NVH properties (NVH: noise, vibration, harshness): very good damping, pleasant acoustics (especially for alternative engines)
- Shorter process chains: complete BASF expertise for complex part from one source – material, design, quality management
- Global use of component possible
In comparison to conventional aluminum die-cast housings with rubber springs the new top mount made of an Ultramid® housing with Cellasto® bearing element is 25 percent lighter.
Excellent materials: Cellasto® Ultramid®

The best material mix for the perfect connection of the shock absorber to the chassis

→ Better driving comfort and vehicle dynamics

Cellasto® – micro-cellular polyurethane elastomer:
- very good static and dynamic behavior
- long usage life
- small installation space

Ultradim® A3WG10 CR – polyamide with 50 percent glass fiber reinforcement:
- excellent strength and stiffness
  also at high temperatures
- optimized for dynamic loads
- well-proven plastic specialty for crash-relevant car parts
Top mount with Cellasto® bearing element
Tailor-made simulation

Precise calculation of the highly-loaded plastic component with the BASF simulation tool Ultrasim®

→ Shorter development times, optimum use of material and therefore lowest possible weight

Ultrasim® – reliable CAE tool by BASF:

- simulations on the basis of standard load situations for top mount housings: tensile and stress forces, lifespan
- simulations of the injection-molding process: mold filling, fiber orientation
- simulation of reaction forces of Cellasto® bearing

Calculation of the fiber orientation within the housing
Simulated with the CAE tool Ultrasim® by BASF: top mount housing made of Ultramid® A3WG10 CR
Selected product literature:

- Cellasto® – Cars love comfort
- Ultramid® – Product Brochure
- Ultramid® – Product Range

Note:
The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (April 2016)

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www.ultramid.basf.com
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