

## No electric car without plastic: Seat backrest in the BMW i3 is made from Ultramid®

### Case Study

The seat backrest of the driver and passenger seats in the innovative electric car BMW i3 is made from BASF's engineering plastic Ultramid® B3ZG8 UV. It is the first injection molded and uncoated structural component made from polyamide to have a visible surface and to be used in the vehicle interior. This lightweight hybrid component, weighing only 2 kg, embodies all the know-how of BASF's Global Seat Competence Team.

The backrest, which integrates multiple functions, is made from a highly UV-stable polyamide 6 compound developed by BASF especially for such applications. As well as providing sufficient rigidity, this material also ensures adequate elongation and toughness to meet the mechanical requirements of the BMW Group, and this within a temperature range of -30°C to +80°C.

Ultramid® B3ZG8 is especially low-emission. Its very high scratch resistance and remarkable surface quality allow a visible use of the seat structure, which thus becomes an important element. Regarding the seat release lever, its material must not fail in a crash. Therefore, a special long glass fiber reinforced Ultramid® grade is employed in this application: Ultramid® Structure B3WG8 LF.

In addition to the backrest and the seat release lever made from Ultramid®, BASF supplied versatile plastics for many other innovative components of the electric vehicle.

