

Reference

## PLEXIGLAS®

### Ambient interior lighting for the XchangE concept car



#### Market segment

Automotive

#### Products

PLEXIGLAS® LED (former EndLighten T)

#### Processing

4erc GmbH/Rinspeed AG: concept vehicle assembly

Mecaplex AG: forming the crossmembers

KRD Sicherheitstechnik GmbH: forming the roof

Weidmann Plastics Technology AG: LED integration

#### Selection criteria

- Transparency
- Edge lighting yields homogeneous light emission across the entire surface
- Excellent brightness
- Low installation depth
- Brilliant surface
- Easy to form
- Outstanding long-term performance

#### Description of the application

In automotive interior, LEDs enable in combination with suitable, edge-lit light guides slim elements for ambient lighting which require a small integration depth as shown in the XchangE concept car from Rinspeed. In this design study, the vehicle roof was formed from a large PLEXIGLAS® LED sheet, into which LED light is in-coupled over the edge to provide homogeneous illumination across the entire surface. The dashboard represents another use for large-area lighting applications: displays are integrated into the crossmembers, which are likewise made of PLEXIGLAS® LED. When unlit, the material is transparent and it can change colors when illuminated.

[http://www.rinspeed.eu/conceptcar\\_Rinspeed-XchangemEem\\_25.html](http://www.rinspeed.eu/conceptcar_Rinspeed-XchangemEem_25.html)

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