Demonstrator “Load-through device“ in the back seat of a car
The Application

- Load-through device in the back seat of a passenger car
- Semi-structural part in automotive applications
- Rewarding application for lightweight design with continuous fibre-reinforced thermoplastic material
- Serial use in Sport Utility Vehicle (SUV) cars

- Development project within the cooperation alliance ThermoPre® together with the Institute of Lightweight Structures at Chemnitz University of Technology
The Project

Original part

- Several individual assembly steps requiring cutting, forming and welding of steel sheets
- Mass: 3.8 kg

Metal based structure

Lightweight part

- Weight savings of 2.2 kg compared to conventional metal design
- Fully recyclable

Fiber reinforced thermoplastic structure

- Continuous fibre-reinforced thermoplastic tapes with short fibre-reinforced ribs
- Efficient manufacturing with injection moulding technology
- Mass: 1.6 kg