

## Case Study

### Aluminium sled – Innovative folding mechanism made of Durethan® BKV 130



Figure 1 Sled with folding mechanism made of Durethan® BKV 130

Every year, as soon as the snow gets deep enough, it's time for kids and grown-ups to take the family sled out for a tobogganing session down the slopes. Rudi Scheib, the well-known expert from Rudisport, a manufacturer of sports equipment based in Ulm, Germany, has developed a particularly stylish model for Porsche-Design Driver's Selection: the Porsche aluminium sled. The ingenious thing about the new creation is the folding mechanism, which is made of Durethan BKV 130 from LANXESS. Even at below-freezing temperatures, the material can withstand forces like practically no other material. Wide-ranging tests on a ski-jump have confirmed that Durethan BKV 130 can resist a load of up to a ton.

Apart from that, this TÜV-tested sled also boasts an exclusive design, a sand-blasted curved aluminum frame with stainless steel runners and the innovative folding mechanism that enables it to be made ready for action in a matter of seconds.

Rudi Scheib and LANXESS have been working together for more than 20 years on the development of folding and steerable sleds. One of the highlights to emerge from this cooperation is the Davos folding sled, which, when folded, is no more than 8 cm wide and fits easily into any trunk. This sled has received several awards for its practicability, including the Innovation award of the German Chamber of Commerce and Industry and the city of Ulm in the south of Germany, the Red Dot award from the North Rhine-Westphalia Design Center for high design quality, and a nomination as one of the best products of the year by Germany's plastic consumer goods trade association (FVKK).

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Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions and the coloring.

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