



POLAR SLEDGE – BELUGA¹

A polar sledge is one of your most personal items on an expedition or a tour. You will probably develop a love-hate relationship to the sledge, quite similar to a captain and his ship. The first polar sledge I designed, the **Beluga¹**, is destined to become your best friend. Following you everywhere, it will let you pull it over pressure ridges without getting caught and slowing you down and will even swim faithfully behind you through water channels. It is light, stable and virtually indestructible. An ideal companion through the Arctic, whether over the Polar Sea or on land, this sledge will not let you down.





THE DEVELOPMENT OF THE BELUGA¹

THE MATERIAL

Several thousands of kilometers on the ice lie behind me, along with a wide variety of sledges made out of different materials and shapes. On our crossing of the Southern Patagonian Ice Field in 2003, as well as on our trip from the North Pole to Franz Joseph Land, Børge Ousland and I used kayaks made out of polyethylene. It was on these expeditions that the reliability of the material in such hard arctic conditions really came to value; it proved to be very light and strong as well as having outstanding gliding properties despite high fluctuations in temperature.





THE BELUGA¹

The **Beluga¹** is the result of a joint venture containing my arctic know-how, the expertise of the University of Applied Sciences in Bern and the long-standing experience of the kayak manufacturer Prijon. The **Beluga¹** was conceived for my Transarctic Solo Expedition 2015 – an expedition covering over 2000 kilometers – where I will be pulling two Belugas behind me, which has proved to be easier in handling. After having tested the sledges previously on the Northpole in April of 2012 and being fully convinced of the product, I have decided to share my experience and produce a small series of the **Beluga¹**.

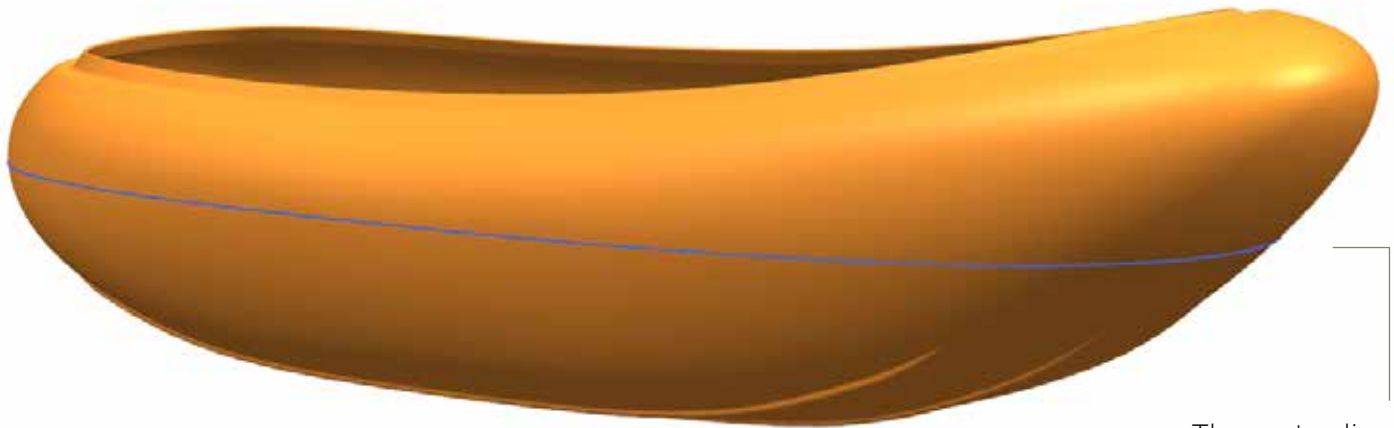
THE ADVANTAGES

- high gliding qualities at low temperatures
- extremely robust
- virtually not tiltable
- high maneuverability
- combinable as a double sledge for longer expeditions
- designed and produced by Thomas Ulrich
- swiss quality



BELUGA¹

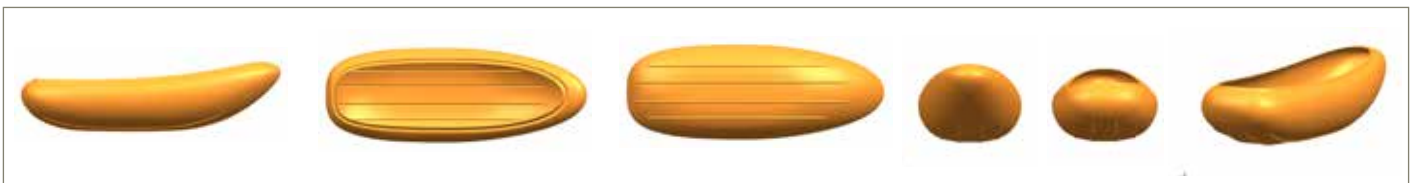
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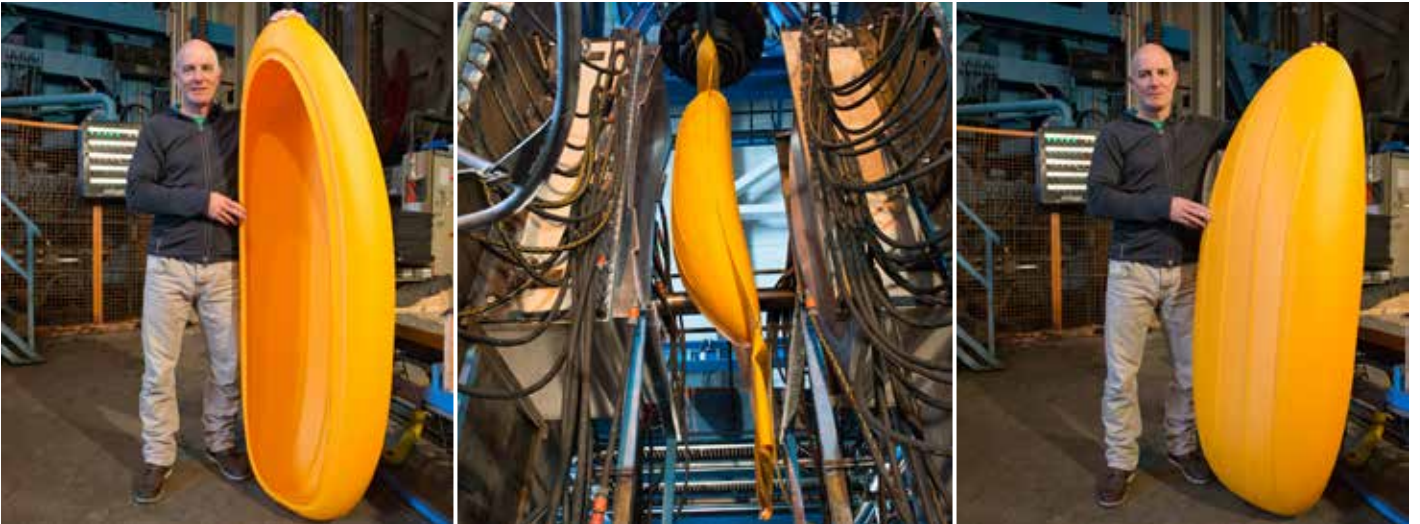


The water line
with a 120 kg | 265 pounds weight load

THE FORM

Since kayaks do not perform ideally on sea ice, I sat together with the University of Applied Sciences in Bern to work on the development of a new sledge shape. Over a period of two years, we worked on the ideal outer shell trying to find the perfect relation between minimal weight, low frictional resistance and maximum packing volume. Anyone who has pulled a sledge over difficult terrain knows how important the tipping angle is, the **Beluga¹** stays virtually upright no matter what. The integrated guiding ribs opposed to runners give it much better maneuverability.





THE PRODUCTION

The Rosenheimer kayak factory Prijon has been specialized in blow moulding for years making them the ideal partner for me. The sledges are made out of one complete mould, diminishing any potential weak points caused by seams.

THE MATERIAL

Polyethylene is the most common of all plastics and an established material used for building boats. Its' density is slightly lower than water, it is unsinkable and it is available in various densitites. HD-PE (High Density, Prijon calls it HTP) has high density, lying at around 0,96 g per cm³. The high degree of hardening makes it a stiff plastic with a melting point of around 140°C (284°F). HD-PE has the highest tensile and tear strength amongst all other PEs.

THE PROCESSING METHOD

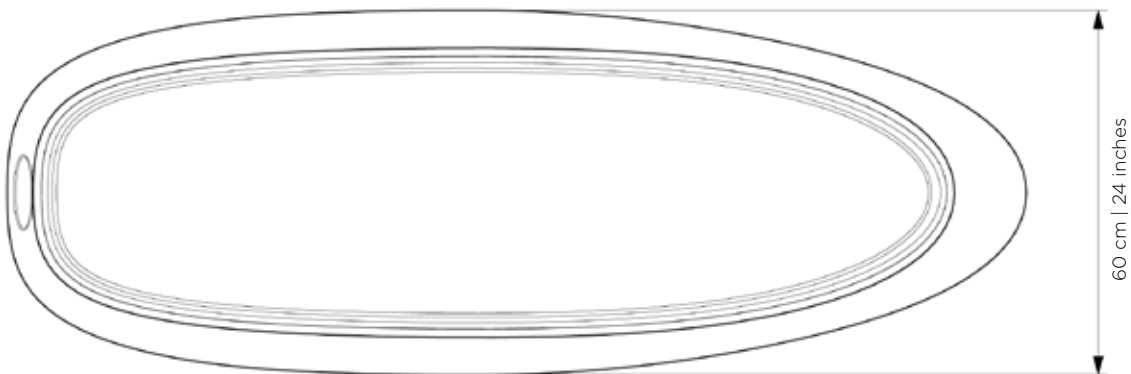
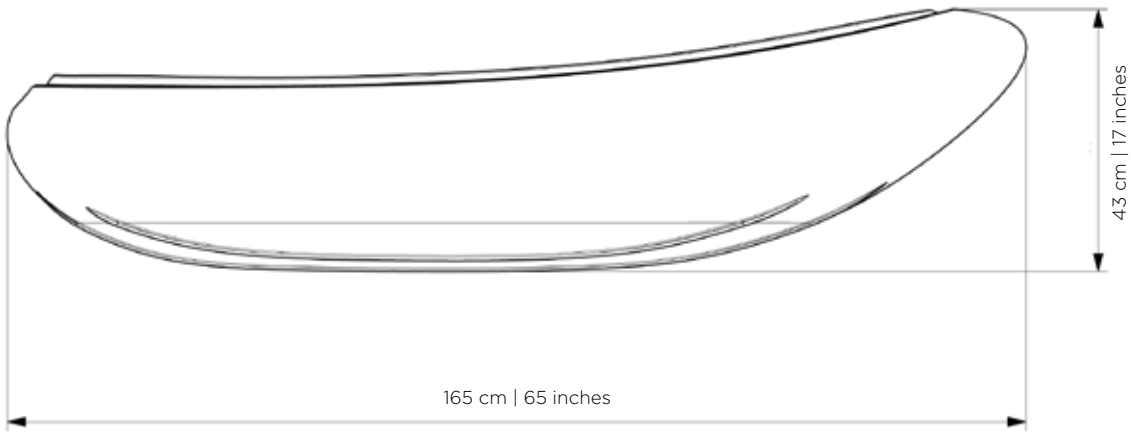
In blow moulding, mostly HD is used. Through heat and pressure the granulate thickens and forms a "tube". The Extruder encompasses and forms the material. Advantages of polyethylene are; high stability and durability, good value and it is recycability.



BELUGA¹

POLARSLEDGE BY

thomasulrich.com



THE FACTS

» Volume: 200 l 44 gallons (uk) » Weight: 8 kg | 18 pounds » Length: 165 cm | 65 inches
» Width: 60 cm | 24 inches » Price: chf 5600.- excl. transport

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