



POLAR BEAR R*CYCLABLE HARDENER

for compression molding

POLAR BEAR



Polar bears are classified as marine mammals because they spend most of their lives on the sea ice of the Arctic Ocean. They have a thick layer of body fat and a water-repellant coat that insulates them from the cold air and water. Considered talented swimmers, they can sustain a pace of six miles per hour by paddling with their front paws and holding their hind legs flat like a rudder. Polar bears spend over 50% of their time hunting for food. Their diet mainly consists of ringed and bearded seals because they need large amounts of fat to survive. Because of ongoing and potential loss of their sea ice habitat resulting from climate change, polar bears were listed as a threatened species.



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POLAR BEAR R***ECYCLABLE** HARDENER

Recyclable epoxy system for heat curing
Compression molding applications

 **10 minutes @ 84 oC**
Recommended Cure Cycle

Applications

Polar Bear Epoxy Resin with Polar Bear R*recyclable hardener is specifically formulated for heat assisted curing, compression molding applications, such as for skis and snowboard manufacturing.



Why choose it

Zero-Landfill Manufacturing:

Composite manufacturing waste can be recycled, and re-integrated back into the composites supply chain. Reduce landfill costs, and improve product margins.

Create Downstream Value:

R*Concept uses a low energy, solution-based process that allows both the resin and fiber reinforcements to be reclaimed in a high quality, virgin-like state, preserving performance and value.

Cradle-To-Cradle Solution:

Composite products made with this system are fully recyclable.

Contact

For technical support:

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TECHNICAL DATA SHEET

Physical Properties

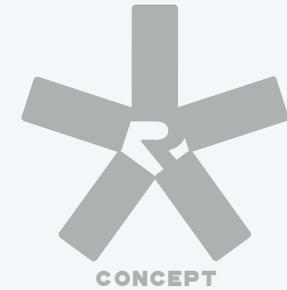
52.5	AEW
150-250 cP	Viscosity (Brookfield, 25°C)
30	PPH amine / 100 part
3,000 - 4,000 cP	Mixed Viscosity (5 min, Brookfield, 25°C)
20 min	Pot life (100 g mass, 21°C)
*Elevated temperature Cure, 3 hr at 100 °C	
85 - 95 °C	Tg
9,890 (68.2) MPa	Tensile Strength, psi
485,070 (68.2) MPa	Tensile Modulus, psi
6,8 %	Elongation at break
15,600 (107.6) MPa	Flexural Strength, psi
453,760 (3.1) GPa	Flexural Modulus, psi
**Elevated temperature Cure, 3 hr @ 100 °C	
4,200 (29.0) MPa	Lap Shear on Aluminum, psi

Safety and Handling

These hardeners are amine derived curing agents, as such they should be treated as a corrosive and an inhalation hazard. All persons who use, store, or transport these materials should properly understand the handling precautions and recommendations as stated in the SDS.

Industrial Recycling

Recycling of composite waste is performed at R*Concept using a low energy, solution-based process. Outputs of the recycling process are an epoxy thermoplastic and all constituent components are recovered in a near virgin state, including reinforcements.



**Technologies
bonded by respect
& driven by values**



Lower your **carbon footprint**.



Repair solutions, tips, services and kits.



End-of-life solutions for the composite industry.



Upcycling materials for new performing composites.



Respect for all stakeholders in the composites industry, the environment, humans & the planet as a whole.

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