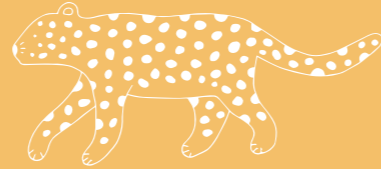


LEOPARD

Biobased epoxy-based
fast bicomponent
adhesive system

For DIY applications
and OEM.



LEOPARD

Leopards have fared slightly better than other big cats, due mainly to their wide distribution and amazing adaptability. Although they are amazingly tolerant of human activity and persist where other carnivores cannot, they have been extirpated from approximately 37% of their African range. Populations in North Africa, the Middle East and Russia are now Critically Endangered. Loss of habitat and prey, as well as intense persecution as livestock killers, is the chief threat to this magnificent big cat. They are heavily hunted in southern Asia for their skin and bones supplying the Chinese medicinal trade. In western and central Africa, they are hunted for their skins, teeth and claws. In tropical forests, bushmeat hunting competes directly for prey species and may drive them to extinction even in forests that have not been logged.



R*CONCEPT
RESPECTFUL BIOCOMPOSITE SOLUTIONS

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LEOPARD

Leopard is a Bio based epoxy-based bi-component adhesive system. Room temperature curing 1:1 mixing ratio system performing rigid bondlines with high mechanical strength. The adhesive system is **fast curing** with satisfactory use for DIY applications and OEM.

Benefits

- ✓ Low viscosity
- ✓ Solvent-free
- ✓ Aging resistance
- ✓ Self leveling
- ✓ Fast curing (5 min)
- ✓ Multi-material bonding
- ✓ Low water absorption
- ✓ Rigid epoxy

Sectors / Applications



DIY



Automotive



Marine



Construction



OEM

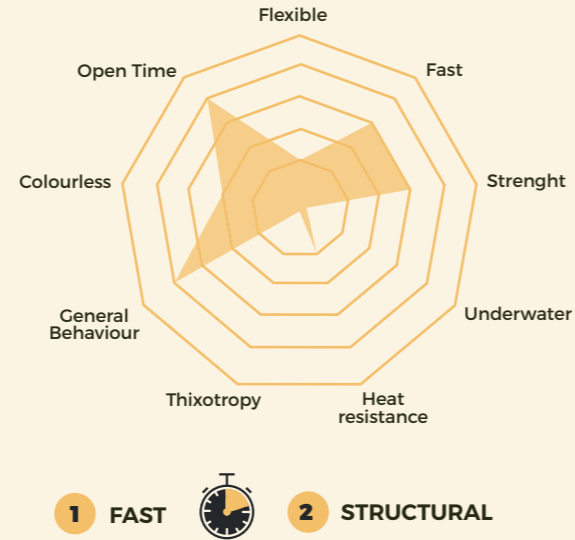


Composites

Ideal for bonding a full range of materials: metals, wood, composites, sailcloth, wetsuit, ceramic, concrete and plastics. Can be charged with fillers and diluted with acetone.

TECHNICAL DATA SHEET

Properties



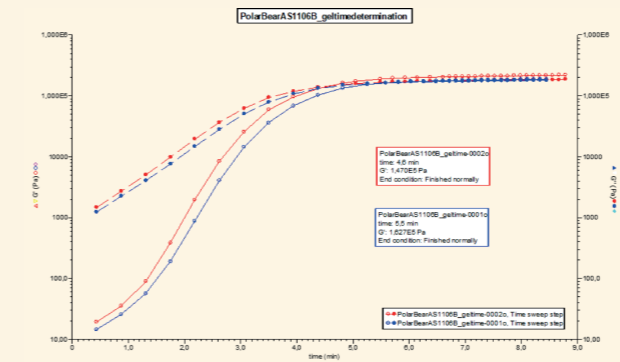
Properties of uncured material

	Resin 25% of Bio-resine	Hardener Mixture liquid	Mixture
Chemical Type			
Appearance	Clear viscous liquid	Colorless to pale yellow	Clear-off viscous liquid
Odor	Light	Mixture	
Density g/cm @25°C	1,17	1,15	1,2
Viscosity (cP) @25°C	10.000 Range 10.000 - 12.000	12.000 Range 10.000 - 16.000	
Flash Point (TCC) °C	>200	>93	
Mix Ratio (R:H) by vol. by weight			1:1

Typical curing performance

Cure Speed

The graph below shows the Storage Modulus (MPa) and Loss Modulus (MPa) over time, on aluminium shear strength with an average bondline gap of 0.6 to 0.8mm on 0 to 50Hz steady state flow procedure on rheological parameters.



Curing properties

Air / water @25°C unless noted **Typical Value**

Working life, minutes	3
Gel time, minutes	5
Tack Free Time, minutes	13
Full Cured Time, hours	24

Typical properties of cured material

Air / water @25°C unless noted **Typical Value**

Tensile Strenght, Mpa (psi) @20min	16
Tensile Elongation, (%)	11
Hardness Shore A (ASTM 2240)	NA
Glass Transition Temperature (Tg), °C	35 to 43

General information

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Directions for use

- For high strength structural bonds, removal of surface contaminants such as paint, oxide films, oils, dust, mold release agents and all other surface contaminants.
- Use gloves to minimize skin contact. DO NOT use solvents for cleaning hands.
- Syringe container:** Syringe ensures correct mixed ratio of the two components. Remove the syringe cap and expel a small amount of adhesive to be sure both sides are flowing evenly and freely. If automatic mixing of resin and hardener is desired, attach the mixing nozzle to the end of the cartridge and begin dispensing the adhesive. **Coaxial cartridge:** To use simply insert the cartridge into the application gun and start the plunger into the cylinder using light pressure on the trigger. Use conventional high viscosity caulking gun. Remove the syringe cap and expel a small amount of adhesive to be sure both sides are flowing evenly and freely. If automatic mixing of resin and hardener is desired, attach the mixing nozzle to the end of the cartridge and begin dispensing the adhesive. **Bulk container:** Mix thoroughly by weight or volume in the proportions specified in Properties of Uncured Material section. Mix vigorously approximately 15 seconds after uniform color is obtained.
 - For maximum bond strength apply adhesive evenly to both surfaces to be joined.
 - Application to the substrates should be made within 5 to 200 minutes. Higher temperatures will reduce this working time.
 - Keep parts from moving during cure. Contact pressure is necessary. Maximum shear strength is obtained with a 0.2 to 0.5mm gap bond line.
 - Excess uncured adhesive can be cleaned up with ketone type solvents.

Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. Shelf life was guaranteed for 36 months in described conditions.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

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