LAPOX® ARA-32 | AH-732

Technical Data Sheet | Polymers Business

Two component slow curing structural epoxy system

Lapox ARA-32	100	pbw
Lapox AH-732	45	pbw

Description

Resin Lapox ARA-32 and hardener Lapox AH-732 are highly thixotropic structural adhesive components to join various surfaces including FRP, metal, glass, and wood etc. This epoxy adhesive system is prefilled with glass fiber to achieve higher lower exotherm, cohesive strength and improved fatigue on appropriately prepared surfaces. Physical state of adhesive make this ideal for non-sagging and filling the gaps of up to 30 mm on vertical surfaces.

Applications

Adhesive can be used to bond various substrates of any size and geometry. It is recommended for joining wind mill blades, boats parts, sporting goods etc.

Processing

Recommended process conditions is 10°C to 50°C. Appropriately cured adhesive performs best between -40°C to 80°C.

Typical specifications

Lapox ARA-32

Properties	Unit	Test method	Values
Appearance	-	Visual	Light-yellow, thixotropic paste
Density at 25°C	g/cm^3	ISO 1183	1.2 - 1.3
Viscosity at 25°C by rheometer[1]	m Pas	ASTM D2196	30 - 100

[1]Viscosity by rheometer at 25°C, plate-to-plate rheometer, gap 0.5 mm, 25°C, shear rate 100 s-1

Lapox AH-732

Properties	Unit	Test method	Values
Appearance	-	Visual	Blue thixotropic paste
Density at 25°C	g/cm^3	ISO 1183	1.05 - 1.15
Viscosity at 25°C by rheometer[1]	m Pas	ASTM D2196	10 - 20

[1]Viscosity by rheometer at 25°C, plate-to-plate rheometer, gap 0.5mm, 25°C, shear rate 100 s-1

Processing properties

Properties	Unit	Test method	Values
Mixing ratio Resin : Hardener	-	Visual	100 : 45 pbw 100 : 50 pbv
Pot life at 30°C	Minutes	ASTM D2471	15 - 45
Curing schedule	°C / hours	-	75°C / 8 hours

Mixing

Resin and hardener should be mixed thoroughly before use from bottom and side walls. Colour of the components will help in visual identification of unmixed area. For good mixing of adhesive, mixing machine is essential. Mix between temperatures of 20°C to 35°C. Maintain surface temperature less than 35°C.

Typical properties of neat cured system

Curing schedule: 75°C / 8 hours
Determined on standard test specimen at 25°C

Properties	Unit	Test method	Values
Tensile strength	MPa	ISO 527	50 - 60
Elongation at break	%	ISO 527	Min 1.5
Elastic modulus in tension	GPa	ISO 527	Min 4.5
Glass transition temperature (DSC)	°C	ISO 11357 - 2	80 - 90
Tensile lap shear for 3 mm bond thickness GRE - GRE	MPa	ISO 4587	12 - 18
Tensile shear strength for 1 mm bond thickness GRE - GRE	MPa	ISO 4587	18 - 25

Packaging

Lapox ARA-32 and Lapox AH-732 is available in 30 kg, 110 kg and 240 kg carboys. Other packing may be considered on request.

Storage and handling

Lapox ARA-32 and Lapox AH-732 have shelf-life of 2 years if stored in their original sealed containers. Resin and hardener may crystallise if stored below 15°C. Crystallisation may be reversed completely by heating the material between 60°C and 70°C. It is recommended to use resin and hardener only when they are clear and free from cloudiness. Both resin and hardener may cause irritation to sensitive skins. If contact does occur to such operators then the resin and hardener should be washed off immediately with soap and warm water. Please refer to the Safety Data Sheet (SDS) for detailed instructions on storage and handling.

Safety

Wear personal protective equipment (PPE). Avoid contact with the eyes and skin. In case of direct contact and irritation, the resin should be washed off immediately with soap and warm water. Avoid breathing vapours, mist or gas. Please refer to the SDS for detailed safety instructions.

Spills and disposal

In case of spills, sweep up and shovel the spilled material. Keep spilled material in suitable, closed containers for disposal. Soak up with an absorbent such as clay, sand or other suitable material. Flush area with water to remove trace residue. Do not allow the product to reach the sewage system. Waste must be disposed of in accordance with federal, state or local regulations, as applicable.

Contact

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Note

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