LAPOX® A-16 | AH-800

Technical Data Sheet | Polymers Business

Fast cure epoxy system for adhesive applications

Description

Lapox A-16 is an unmodified liquid epoxy resin based on bisphenol A. Lapox AH-800 is a clear transparent curing agent. When resin and hardeners are used in appropriate ratio, it provides excellent bond strength within short time to variety of substrates. Due to faster reactivity of system, this is used for quick setting adhesive applications.

Advantages

Clear transparent film
Excellent adhesion to variety of substrates
Faster reactivity

Applications

Two component epoxy adhesives

Typical specifications

Test	Unit	Reference	Value	
			Resin	Hardener
Description	-	Visual	Clear viscous liquid	Clear viscous liquid
Colour	GS	ASTM D1544	Max 1	Max 1
Viscosity at 25°C[1]	m Pas	ASTM D2196	10,000 - 12,000	5,000 - 13,000
Epoxy value	Eq/kg	ASTM D1652	5.20 - 5.50	-
Amine value	Eq/kg	ASTM D2073	-	50 - 80
Density	g/cc	ASTM D792	1.1 - 1.2	1.12 - 1.15

[1]Viscosity by Brookfield viscometer

Mix specifications

Test	Unit	Reference	Value
Mixing ratio (resin : hardener)	By weight	-	100 : 100
Mix viscosity at 25°C	m Pas	ASTM D2196	10,000 - 13,000
Pot life at 25°C[1]	Minutes	ASTM D2471	3 - 7

[1]Pot life of 10 g mix mass at 25 ± 1°C in plastic disposable cup by 'Gardco' gel timer

After cure specifications

Test	Unit	Reference	Value
Hardness[1]	Shore D	ISO/ R868	Min 80
Lap shear strength[2]	Kg/cm^2	-	Min 120
Drying time of film at 25ºC	Minutes	-	10 - 15
Hard dry of film at 25ºC	Minutes	-	50 - 60
Optical clarity	-	Visual	Excellent

[1]Hardness checked for 20 mm casting, after 24 hours curing
[2]Aluminum to Aluminum substrate. Strength checked after 24hr at 25ºC

Processing

Mixing: Mixing is critical and must be accurate. Take resin and curing agent in desired ratio. The mass must be thoroughly mixed, manually or mechanically to homogeneous consistency. Scrap the sides and base of the mixing pot before transferring the mix. It is important to mix small quantity, preferably 10 to 30 g at a time since this system shows high reactivity and cures very fast within few minutes.

Applications: After through mixing of resin and hardener, the mix mass is to be applied by spatula on the substrate. Appropriately bonded joints need to cure at least for 24 hours at room temperature. Excessive humidity (above ~65%) and low temperature (less than 10°C) may retard the curing process. Optimum properties achieved after 7 days of curing at room temperature.

Troubleshooting

Problem	Cause
Uncured after 24 hours to 48 hours	Wrong mix ratio
Sticky | greasy | hazy surface	High humidity
Air bubbles are entrapped	Mixing was too fast

Packaging

Lapox A-16 is and Lapox AH-800 is available in 200 kg carboys as well as metal drums. Other packing may be considered on request.

Storage and handling

Lapox A-16 and Lapox AH-800 should be stored in a cool and dry place, preferably in a sealed container and should not be exposed to direct sunlight. Lapox A-16 has shelf-life of at least two years while Lapox AH-800 has shelf-life of one year, if stored in its original container between 2°C and 40°C away from humidity and excessive heat. 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, it 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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