Technical Data Sheet | Polymers Business



## Ambient curing adhesive for artificial jewellery and bangle industries

 Description
 Lapox Banglefix is two component modified, viscous epoxy adhesive system. When both components are mixed in recommended ratios and cured appropriately at room temperature, an excellent bond strength can be achieved with most of the substrates including glass, metals, plastics, wood and natural stones. The system is suitable for fixing gem stones and pearls in bangle industries.

 Applications
 Artificial jewellery and jewel stone fixing Bangle industries Souvenirs and handicrafts

 Advantages
 High filler loading

High filler loading High strength Water and chemical resistant Thermally stable and suitable to perform in extreme conditions

## **Typical specifications**

Test	Unit	Reference	Value	
			Resin	Hardener
Description	-	Visual	Clear, viscous liquid	Clear, yellowish- brown, viscous liquid
Viscosity at 25°C	m Pas	ASTM D2196	20,000 - 30,000	30,000 - 40,000
Colour	GS	ASTM D1544		Max 7
Colour	APHA	ASTM D1209	Max 100	
Density	g/cc	ASTM D792	1.05 - 1.15	0.90 - 0.96
Wiscosity by Brookfield visc	cometer			

<sup>1</sup>Viscosity by Brookfield viscometer

## **Mix specifications**

Test	Unit	Reference	Value
Mixing ratio (resin : hardener)	w/w	-	100 : 80
Mix viscosity at 25°C	m Pas	ASTM D2196	25,000 - 35,000
Pot life <sup>1</sup>	Minutes	ASTM D2471	40 - 50
Peak exotherm temperature <sup>2</sup>	°C	ASTM D2471	Max 55
Surface dry*	Minutes	ASTM D5895	80 - 100
Touch dry*	Minutes	ASTM D5895	170 - 200
Hard drv*	Minutes	ASTM D5895	350 - 370

<sup>1</sup>Pot life of 100 g mix mass at 25 ± 1°C in plastic disposable cup by 'Gardco' gel timer

<sup>2</sup>Total 100 g mix mass in plastic disposable cup at 25°C

\*Drying time of 200 micron film on glass plate at 25°C

After cure specifications	ter cure specifications Test		Reference	Value
	Lap shear strength at 25°C <sup>1</sup>	kg/cm <sup>2</sup>	ASTM D1002	Min 100

<sup>1</sup>Lap shear strength on prepared aluminum strips after 24 hours curing

## LAPOX<sup>®</sup> BANGLEFIX

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Processing	<b>Surface preparation:</b> The adherents must be thoroughly degreased with a good degreasing solvent (e.g. toluene, acetone trichloroethylene) and abraded with coarse emery paper or chemically etched. Inadequately pre-treated substrates may not bond satisfactorily.
	Application: The mixed mass is applied by brush or spatula on the surface to be adhered. The mix must be used within its pot life.
	<b>Curing:</b> Curing normally takes place at room temperature within about 24 hours depending on the ambient temperature but may be accelerated by the application of heat.
Packaging	Lapox Banglefix is available in 1.8 kg HDPE bottles. Other packing may be considered on request.
Storage and handling	Lapox Banglefix should be stored in a cool and dry place, preferably in a sealed container and should not be exposed to direct sunlight. This product has a shelf life of one year, if stored in its original container between 2°C and 40°C away from humidity and excessive heat.
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 Safety Data Sheet (SDS) of Lapox Banglefix 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	E-mail: polymers_support@atul.co.in Website: www.atul.co.in
Note	Lapox <sup>®</sup> is a registered trademark of Atul Ltd.

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