

## Ambient cure high viscous adhesive system

### Description

Lapox Clearset is two component modified, viscous epoxy adhesive system. When both components are mixed in recommended ratio and cured appropriately at room temperature, excellent bond strength can be achieved with most of the substrates including glass, metals, plastics, wood, textile, and natural stones. Faster productivity can be achieved if curing is performed at higher temperature, i.e. 40-60°C. Curing at higher temperature is recommended to achieve optimum bond strength.

### Applications

Zari Fixing in Textiles  
Electronic speakers  
Marble joining  
Artificial jewelry & jewel stone fixing  
Souvenirs and handicrafts

### Advantages

Long pot life  
High bond strength  
Water and chemical resistant  
High mechanical strength even in dynamic conditions  
Thermally stable and suitable to perform in extreme conditions

### Typical specifications

Test	Unit	Reference	Value	
			Resin	Hardener
Description	-	Visual	Clear, viscous liquid	Clear, viscous liquid
Viscosity at 25°C <sup>1</sup>	m Pas	ASTM D2196	60,000 - 75,000	30,000 - 40,000
Colour	APHA	ASTM D1209	Max 70	Max 80
Density	g/cc	ASTM D792	1.05 - 1.15	1.02 - 1.08

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

### Mix specifications

Test	Unit	Reference	Value
Mixing ratio (resin : hardener)	w/w	-	100 : 100
Mix viscosity at 25°C	m Pas	ASTM D2196	35,000 - 40,000
Pot life <sup>1</sup>	Minutes	ASTM D2471	60 - 75
Peak exotherm temperature <sup>2</sup>	°C	ASTM D2471	Max 45
Surface dry*	Minutes	ASTM D5895	80 - 100
Touch dry*	Minutes	ASTM D5895	240 - 260
Hard dry*	Minutes	ASTM D5895	490 - 510

<sup>1</sup>Pot life of 10 g mix mass at 25 ± 1°C in plastic disposable cup

<sup>2</sup>Total 10 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

Test	Unit	Reference	Value
Lap shear strength at 25°C <sup>1</sup>	kg/cm <sup>2</sup>	ASTM D1002	Min 120

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

### Processing

**Surface preparation:** 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.

**Curing:** 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.

# LAPOX<sup>®</sup> CLEARSET

Technical Data Sheet | Polymers Business



<b>Packaging</b>	Lapox Clearset is available in 0.5, 1, 2, and 10kg packs. Other packing may be considered on request.
<b>Storage and handling</b>	Lapox Clearset 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 two years, if stored in its original container between 2°C and 40°C away from humidity and excessive heat.
<b>Safety</b>	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 Clearset for detailed safety instructions.
<b>Spills and disposal</b>	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.
<b>Contact</b>	E-mail: <a href="mailto:support_polymers@atul.co.in">support_polymers@atul.co.in</a> Website: <a href="http://www.atul.co.in">www.atul.co.in</a>
<b>Note</b>	Lapox <sup>®</sup> is a registered trademark of Atul Ltd.

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