

Ambient cure low viscous epoxy system

Description

Lapox Bristle Bond is two component modified, epoxy adhesive system. When both components are mixed in recommended ratio and cured appropriately at room temperature, an excellent strength can be achieved for fixing ferrule to bristles in paint brush industries. Faster productivity can be achieved, if curing is performed at higher temperature between 40°C and 60°C.

Applications

Paint brush industries for fixing ferrule to bristles

Advantages

Excellent solvent and water resistance compared to shellac bonding
 Excellent mechanical strength and electrical insulation
 Resistance to most chemicals

Typical specifications

| Test | Unit | Reference | Value | |
|--------------------------------|-------|------------|---------------|--------------|
| | | | Resin | Hardener |
| Description | - | Visual | Clear liquid | Clear liquid |
| Viscosity at 25°C ¹ | m Pas | ASTM D2196 | 3,000 - 4,000 | 5 - 15 |
| Colour | AHPA | ASTM D1209 | Max 100 | - |
| Colour | GS | ASTM D1544 | - | Max 1 |
| Density | g/cc | ASTM D792 | 1.05 - 1.15 | 0.90 - 0.96 |

¹Viscosity by Brookfield viscometer

Mix specifications

| Test | Unit | Reference | Value |
|--|---------|------------|-----------|
| Mixing ratio (resin : hardener) | w/w | - | 100 : 10 |
| Mix viscosity at 25°C | m Pas | ASTM D2196 | 300 - 500 |
| Pot life ¹ | Minutes | ASTM D2471 | 40 - 55 |
| Peak exotherm temperature ² | °C | ASTM D2471 | Max 75 |
| Surface dry* | Minutes | ASTM D5895 | 230 - 250 |
| Touch dry* | Minutes | ASTM D5895 | 620 - 640 |
| Hard dry* | Minutes | ASTM D5895 | 820 - 840 |

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

²Total 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

| Test | Unit | Reference | Value |
|----------------------------|--------------------|------------|----------|
| Lap shear strength at 25°C | kg/cm ² | ASTM D1002 | 80 - 100 |

¹Lap shear strength on prepared aluminum strips after 24 hours curing

| | |
|-----------------------------|---|
| Processing | <p>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.</p> <p>Application: The mixed mass is poured into the metal ferrule for bonding with bristles. The mix must be used within its pot life.</p> <p>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.</p> |
| Packaging | <p>Lapox Bristle Bond is available in 1.1 kg and 5.5 kg bottles, and 33 kg HDPE carboys. Other packing may be considered on request.</p> |
| Storage and handling | <p>Lapox Bristle Bond 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.</p> |
| Safety | <p>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 Bristle Bond for detailed safety instructions.</p> |
| Spills and disposal | <p>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.</p> |
| Contact | <p>E-mail: support_polymers@atul.co.in Website: www.atul.co.in</p> |
| Note | <p>Lapox[®] is a registered trademark of Atul Ltd.</p> |