

Ambient cure epoxy coating system

Description

Lapox Metalam - A is two component modified, epoxy coating system. When both components are mixed in recommended ratios and cured appropriately at room temperature, an excellent coating or lamination can be achieved on most of the substrates including glass, metals, plastics, wood, paper stickers and natural stones. Faster productivity can be achieved, if curing is performed at higher temperature between 40°C and 60°C. Curing at higher temperature is recommended to achieve optimum properties.

Applications

Buckles
Coating and lamination of articles
Key-chain
Metal gift articles
PVC
Paper stickers

Advantages

Excellent hardness of cured film
Good flexibility and adhesion
High gloss and clarity
Thermally stable and suitable to perform in extreme conditions
Water and chemical resistant

Typical specifications

Test	Unit	Reference	Value Resin	Hardener
Description	-	Visual	Clear, viscous liquid	Clear, colourless liquid
Viscosity at 25°C ¹	m Pas	ASTM D2196	20,000 - 26,000	20 - 30
Colour	APHA	ASTM D1209	Max 100	-
Colour	GS	ASTM D1544	-	Max 1
Density	g/cc	ASTM D792	1.05 - 1.15	0.90 - 0.95

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	2,500 - 5,000
Pot life ¹	Minutes	ASTM D2471	10 - 20
Peak exotherm temperature ²	°C	ASTM D2471	Max 100
Surface dry*	Minutes	ASTM D5895	18 - 22
Touch dry*	Minutes	ASTM D5895	30 - 40

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
Water absorption (24 hours immersion)	%	ASTM D670-63	Max 0.5
Hardness of 10 mm casting (after 24 hours)	Shore D	ISO/ R868	65 - 70

Processing	<p>Surface preparation: The adherents must be thoroughly degreased with a good degreasing solvent (e.g. toluene, acetone trichloroethylene). Ensure the surface is free from the dirt, oil, grease and moisture. Wipe off the surface with clean cloth. Inadequately pre-treated substrates may not yield satisfactory results.</p> <p>Application: The mixed mass is applied by brush, spatula or through dispensing bottle on the surface to be coated. 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 Metalam - A is available in 1.1 kg bottles, 5.5 kg HDPE jerry cans and 33 kg HDPE carboys. Other packing may be considered on request.</p>
Storage and handling	<p>Lapox Metalam - A 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 Metalam - A 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>