

Ambient cure high viscous adhesive system

Description

Lapox Ultrafix is two component, multi-functional, fast setting and high strength versatile construction, epoxy adhesive system. This is used for spot bonding of large stone and tiles on vertical surfaces and has high mechanical strength as well as outstanding resistance to water and chemicals. Lapox Ultrafix resin and hardener are to be mixed thoroughly in the recommended mixing ratio to achieve optimum results.

Applications

Adhesive for bedding marble
Granite and other stone on walls
Anchoring grouts for reinforcing steel
Bonding of fabricated components
Repairing material for concrete cracks
Spot bonding for marbles and granites on concrete surfaces

Advantages

Allows plumb level adjustments while the stone is in place
Fast curing (handling strength within 60 minutes to 90 minutes)
Faster productivity due to rapid curing
High bond strength on damp surfaces
Out-standing resistance to water and chemicals
Reduction in labor cost
Setting of clamps
Drilling and cutting of stone is not required

Typical specifications

Test	Unit	Reference	Value	
			Resin	Hardener
Description	-	Visual	Thixotropic white paste	Thixotropic white paste
Viscosity at 25°C ¹	m Pas	ASTM D2196	2,00,000 - 3,00,000	2,00,000 - 3,00,000
Colour	-	Visual	Off-white	Off-white
Density	g/cc	ASTM D792	1.55 - 1.65	1.55 - 1.65

¹Viscosity by Brookfield viscometer

Mix specifications

Test	Unit	Reference	Value
Mixing ratio (resin : hardener)	w/w	-	100 : 50
Pot life ¹	Minutes	ASTM D2471	10 - 15
Peak exotherm temperature ²	°C	ASTM D2471	Max 77

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

After cure specifications

Test	Unit	Reference	Value
Lap shear strength after 24 hours ¹	kg/cm ²	ASTM D1002	Min 120
Lap shear strength after 7 days ¹	kg/cm ²	ASTM D1002	145 - 155
Lap shear strength after 24 hours (curing under water) ¹	kg/cm ²	ASTM D1002	50 - 70
Flexural strength ²	kg/cm ²	ASTM D796	420 - 440
Tensile strength ²	kg/cm ²	ASTM D638	230 - 250
Compressive strength after 6 hours ³	kg/cm ²	ASTM D695	290 - 310
Compressive strength after 7 days ³	kg/cm ²	ASTM D695	400 - 420
Sag resistance test at 25°C	-	-	No sagging
Sag resistance test at 45°C	-	-	No sagging
Hardness ⁴	Shore - D	ASTM D2240	72 - 78
Water absorption (after 24 hours)	%	ASTM D670 - 63	0.30 - 0.50

¹Lap shear strength on prepared aluminum strips at 25°C

²Flexural and tensile strength after 24 hours curing at 25°C

³Compressive strength at 25°C

⁴Hardness checked after 24 hours for 45 g mass at 25°C

Processing

Surface preparation: All substrates must be clean and dry prior to application of Lapox Ultrafix adhesive system. Clean and grind the area of stone where Lapox Ultrafix is to be used by using mechanical wheel grinder with a diamond wheel blade. Surface after treatment must be thoroughly cleaned of all laitance, loose material, oil and grease.

Application: Stir part A (resin) and part B (hardener) thoroughly with separate stirrer to get uniform mix mass. Take part A and B in proportion of 100 : 50 (by weight) and mix thoroughly until, homogeneous paste with uniform colour is achieved, with putty knife or margin travel. Apply immediate and evenly distribute on the back of the tile and stone. Apply minimum five days, one in each corner and other in center, dap thickness must be maintain 3 mm. 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.

Packaging

Lapox Ultrafix is available in 1.5 kg HDPE bottles. Other packing may be considered on request.

Storage and handling

Lapox Ultrafix 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.

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 Ultrafix 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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LAPOX[®] ULTRAFIX

Technical Data Sheet | Polymers Business



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