LAPOX® POWERGRIP

Technical Data Sheet | Polymers Business

Ambient cure high viscous adhesive system

Description

Lapox Powergrip 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, reactive plastics, wood, textile 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 bond strength.

Applications

Artificial jewellery and jewel stone fixing
Electrical components
General engineering components
Natural stones
Souvenirs and handicrafts
Sports goods

Advantages

High bond strength
High mechanical strength even in dynamic conditions
Long pot life
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, yellowish to brownish, viscous liquid
Viscosity at 25°C[1]	m Pas	ASTM D2196	35,000 - 45,000	28,000 - 40,000
Colour	APHA	ASTM D1209	Max 100	-
Colour	GS	ASTM D1544	-	Max 8
Density	g/cc	ASTM D792	1.04 - 1.12	0.92 - 0.98

[1]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	30,000 - 40,000
Pot life[1]	Minutes	ASTM D2471	65 - 80
Peak exotherm temperature[2]	°C	ASTM D2471	Max 60
Surface dry*	Minutes	ASTM D5895	110 - 130
Touch dry*	Minutes	ASTM D5895	300 - 320
Hard dry*	Minutes	ASTM D5895	510 - 530

[1]Pot life of 100 g mix mass at 25 ± 1°C in plastic disposable cup by 'Gardco' gel timer
[2]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

Test	Unit	Reference	Value
Lap shear strength at 25°C[1]	kg/cm^2	ASTM D1002	Min 95

[1]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.

Packaging

Lapox Powergrip is available in 450 g, 900 g and 1.8 kg bottles as well as 9 kg, 45 kg and 90 kg HDPE carboys.

Storage and handling

Lapox Powergrip 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 Powergrip 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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Note

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