



Adhesives

epoxa us™ 600-01

Description

epoxa us™ 600-01 epoxy adhesive reacts with selected curing agents creating a very strong and durable bond in a great variety of materials like metal, plastics, wood, concrete, glass, ceramics, composites, etc.

It possesses thixotropic properties because it is a white gel-like product and can be handled easily when mixed with the different hardener options. It is available in regular cans or in a dual cartridge syringe form.

Applications

- * Motor electrical encapsulation (dielectric)
- * Marble, granite countertops
- * Construction anchoring
- * Automotive and marine adhesives
- * Maintenance and repair

Key Features and Benefits

- * Can be used with selected hardeners
- * Non-critical combining ratios
- * Thixotropic, gel texture
- * Cures at room temperature or faster by applying moderate heat
- * Resistant to chemicals

Sales Specification

| Property | Units | Value | Test Method/Standard |
|--------------------|--------|-------------------|----------------------|
| Weight per epoxide | g/eq | 186-191 | ASTMD1652 |
| Viscosity at 25°C | n/a | Viscous Gel | |
| Color | Visual | Transparent White | |

Typical Properties

| Property | Units | Value | Test Method/Standard |
|--------------------------|---------|-------|----------------------|
| Vapor pressure 25c (77f) | mm Hg | 0.03 | |
| Density @ 25 °C | lbs/gal | 9.950 | ASTM D1475 |

| | | | |
|------------------|-----|-----------------|------|
| Flash point PMCC | ° C | >150 | D 93 |
| Appearance | | Translucent Gel | |
| Mix ratio with | | | |

Selected Curing Agent Properties

| | Color Visual | Viscosity 25c 77f cps | Density 25c lbs gall | Shelf life months minimum |
|------------------------------------|-----------------|--------------------------|-------------------------|------------------------------|
| epoxa us 60-01 curing agent | Amber | 7000-11000 | 8.1 | 24 |
| epoxa us 64-01 curing agent | Amber | 16000-18000 | 8.2 | 24 |
| epoxa us 31-01 curing agent | Amber | 600-1200 | 8.2 | 24 |

epoxa us 60-01: Slow cure at room temperature (15c / 59f minimum) or by applying moderate heat or combining it with epoxa us 64-01. The cured system provides excellent flexibility and resistance when bonding difficult materials like plastics, metals and glass. Maximum operating temperature is 120c (248f)

epoxa us 64-01 Fast cure at room temperature (0c / 32f minimum) can be mixed in combination with epoxa us 64-01 to slow down curing or increase flexibility of the system. It is recommended in applications where fast curing is needed in materials like metals, concrete and other construction materials. Maximum operating temperature is 120c (248f)

epoxa us 31-01 Hardens at room temperature (15c 59f minimum) and completes curing at 150c 302f (postcuring in oven). Maximum hardness and thermal resistance at temperatures up to 180c 356f

Handling Properties

| | | |
|--|-----|----------------------|
| Viscosity, Mixed 60-01 / 64-01 / 31-01 | cP | 14000 / 18000 / 4000 |
| Peak Exotherm film / in mass (250gr) | °C | 78 / 110 |
| Pot life, 250 g, 25 °C | min | 60 / 5 / 30 |

Cured Properties

| | | |
|---|-----|---------------------|
| Heat Deflection Temperature 60-01 / 64-01 / 31-01 | °C | 53 / 89 / 55 |
| Tensile Strength 60-01 / 64-01 / 31-01 | psi | 7,107 / 6933 / 7082 |
| Tensile Elongation 60-01 / 64-01 / 31-01 | % | 7 / 3 / 6 |

Physical Properties

Results will vary depending on several factors. High humidity could affect bonding, bad mixing will affect the project because the system cures only when mixed and not with air as in majority of systems.

Surface contaminants and oils could play a part in final properties.

Small pre-tests are recommended to obtain wanted properties.

Not recommended for below 35f application.

Curing times depend on temperature and mass (quantity of product mixed) higher temperature, faster curing, more mass, faster curing.

600-01

If used with epoxa us 64-01 this system will cure 85% faster than when used with other curing agents so surfaces to be bonded should be contaminant free and ready before mixing occurs.

Very strong adhesions can be obtained with any hardener choice and excellent final properties and ease of use make this system one of the most popular among different industries.

Curing

epoxa us resin 600-01 used with epoxa us curing agents 60-01, 64-01, 31-01 curing times:

epoxa us 60-01: 24-36 hours at 25c 77f or 4 hours at 60c 140f.

epoxa us 64-01: 16-24 hours at 25c 77f or 2 hours at 60c 140f.

epoxa us 31-01: 4-16 hours at 25c 77f plus 1 hour at 100c 212f plus 2 hours at 150c 302f.

These hardeners are sensitive to humidity, keep containers closed when not in use and store them in a dry and cool place away from direct sunlight.

Resistance to Chemicals

epoxa us epoxy resin 600-01 when used with curing agents 60-01 / 64-01 / 31-01 exhibits great resistance to general chemicals and acids. Impermeability is one of it's properties although submerging in water or acids for long periods of time is not recommended.

The system is intended for indoor and outdoor use, weather will not damage the product with time and small discoloration may occur after long periods of exposure to direct sunlight for many years.

Pigmentation

epoxa us 600-01 adhesive epoxy resin system or the selected three curing agents can be pigmented with different minerals to achieve desired color. Some types of acrylic copolymer liquid pigments can be used as some types of paint coloring. These pigments are usually applied to the resin part of the system prior to mixing with the curing agent.

Preparation

epoxa us 600-01 adhesive system should be mixed as stated before in its container reaching all corners of it to assure proper mixing. Regular preparation may include sanding and degreasing of the surfaces to be bonded.

Some materials like aluminium synthetic rubber or plastics could required a chemical treatment to achieve desired results

600-01

Storage, Handling and Safety

Please read and understand the latest MSDS before using epoxa us 600-01

Please refer to epoxa us website for more information on shelf life.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on epoxa us incorporated products should be directed to your epoxa us sales representative. Information and MSDSs on non epoxa us products should be obtained from the respective manufacturer.

Packaging

Available in gallon and drum quantities.

Contact Information

For product prices, availability, or order placement, MSDS and technical help please contact us.

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