



Curing Agents

epoxa us™ 23-01

Description

epoxa us™ 23-01 curing agent is a aliphatic amine - mercaptan based compound that react with a variety of epoxy resins to create a solid with excellent bonding properties to almost any surface, achieving superb tensile and compression characteristics and impact resistance as well. It is highly thixotropic in paste form and fast when curing (5-7) minutes. It is used in several different types of industries.

Applications

- * Adhesives
- * Construction
- * Automotive, Marine
- * Repairs, Maintenance
- * Aerospace

Key Features and Benefits

- * Fast cure at room temperature
- * Easy 2 to 1 mix by volume
- * Thixotropic
- * Can be used with different types of epoxy resin
- * Resistant to chemicals and weather

Sales Specification

Property	Units	Value	Test Method/Standard
Primary Amine % of total	%	1250	ST 5.34
Viscosity at 25°C	n/a	Viscous Paste	
Color	Visual	Gray-White	ASTM D1544

Typical Properties

Property	Units	Value	Test Method/Standard
Equivalent weight, approx.		79	
Density @ 25 °C	lbs/gal	14.711	ASTM D1475

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Flash point	°C	>127	PMCC
Appearance		White-Gray Paste	
Mix ratio with			
epoxa us 610-01	phr	40	

Performance Properties

Properties of epoxa us 23-01 curing agent

Components	Method	Units	Value
epoxa us 23-01		pbw	540
epoxa us 610-01 epoxy		pbw	100

Mix part A (610-01) with part B (23-01) for 2 minutes getting all the corners and angles of the mixing container. Apply immediately after mixing onto dirt, oil and grease free surface to be bonded. It is recommended to clean any tools while the system is not cured to avoid tool cleanup of cured resin.

Handling Properties

25°C

Viscosity, Mixed		cP	10000-15000
Peak Exotherm film / in mass (250gr)		°C	78 / 110
Pot life, 250 g, 25 °C		min	3

Cured Properties

Heat Deflection Temperature	ASTM D648	°C	53
Tensile Strength	ASTM D638	psi	7,107
Tensile Elongation		%	7

Physical Properties

Percent of solids in epoxa us 23-01			100
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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.

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

Small tests are recommended to obtain desired results.

Not recommended for below 37f application.

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

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If used in thin coating form this system will cure 85% as fast as in mass so surfaces to be bonded should be ready and contaminant free prior to mixing.

Mixing can be done with a drill to accelerate mixing and add 1 or 2 minutes to working time (this could also generate more heat at mixing and accelerate the cure)

Dry Times

Tack-free	hours	6-8
Through-cure	hours	7-9

250 gr mass

Pot life at 25 °C	minutes	3
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Dry times

Gel Time	minutes	4
Cure	minutes	8-11
Final Properties	minutes	28-39

Resistance to Chemicals

epoxa us curing agent 23-01 when used with epoxa us resin 1610-01 or 1667-01 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 23-01 curing agent when used with epoxa us 1610-01 or 1667-01 epoxy resin 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.

Repair and Maintenance

epoxa us 23-01 is used in repair applications on concrete floors, walls and anything made out of concrete or stone-like materials like park benches, statues, ornaments, paths, countertops, etc.

The list is endless as marine and aerospace repairs are also made with this system.

Some plastic materials might be difficult to bond or repair and another type of epoxy system should be used.

Storage, Handling and Safety

Please read and understand the latest MSDS before using epoxa us 23-01

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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