

ONEBOND 8422 FAST EPOXY

Description

ONEBOND 8422 is a flexible, fast curing, UV resistant, two-component epoxy adhesive and gap-filler that can be painted 30 minutes after application time. ONEBOND 8422 cures at room temperature and can be applied underwater. ONEBOND 8422 bonds well to metals, rigid plastics, ceramic, wood, glass and to flexible substrates such as rubbers (Neoprene/NBR), leather and fabrics (sailcloth), among others.

Typical component properties⁽¹⁾

	Unit	Resin (Component A) Bisphenol-A epoxy	Hardener (Component B) Mercaptan	Test Method
Appearance		Off-white viscous liquid	Colorless to pale white	
Odor		Light	Mercaptan-like	
Density @+25°C	g/ml	1,21	1,18	
Viscosity @+25°C	cP	22,000 – 40,000	20,000 – 45,000	
Flash Point	TCC, °C	12	>258	

	Unit	Mixture
Appearance		Off-white viscous liquid
Density @+25°C	g/ml	1.2
Mix Ratio by Volume	R:H	1:1
Mix Ratio by Weight	R:H	1:1

1: These are typical values and should not be construed as specifications.

Typical curing properties⁽¹⁾

	Unit	Mixture
Open time	Minutes	8
Tack-free time	Minutes	12
Painting time	Minutes	30
Full cure time	Hours	24

1: These are typical values and should not be construed as specifications.

Typical properties of the cured material⁽¹⁾

	Unit	Mixture	Test Method
Tensile Strength	MPa	3.5	ASTM D-638
Elongation at Break	%	55	ASTM D-638
Hardness Shore A		57	ASTM 2240

ONEBOND 8422 FAST EPOXY

	Unit	Mixture
Glass Transition Temperature	°C	10 – 12
Temperature range	°C	<50
Maximum gap	mm	10

1: These are typical values and should not be construed as specifications.

Fixture time

Substrate	Unit	Mixture
Plastics Polycarbonate, ABS, PVC, Phenolic Resin.	Minutes	10 – 20
Metals Aluminum, Mild Steel, Cold Rolled Steel, Zinc.	Minutes	10 – 20
Wood Pine, Beech, Oak, Fir, Teak, Balsa, Chipboard, Baywood.	Minutes	10 – 20
Flexible substrates Noprene, NBR, Leather, Fabric	Minutes	10 – 20
Others Ceramic, Glass, Paper	Minutes	10 – 20

1: These are typical values and should not be construed as specifications.

Lap Shear Strength⁽¹⁾

Substrate	Unit	Mixture	Test Method
Polycarbonate	N/mm ²		ISO 4587
ABS	N/mm ²		ISO 4587
PVC	N/mm ²		ISO 4587
EPDM	N/mm ²		ISO 4587
PMMA	N/mm ²		ISO 4587
Mild Steel	N/mm ²		ISO 4587
Aluminum	N/mm ²		ISO 4587
Pine wood	N/mm ²		ISO 4587
Wood MD	N/mm ²		ISO 4587

1: These are typical values and should not be construed as specifications.

2: Cohesive failure of the adhesive. 3: Substrate failure

ONEBOND 8422 FAST EPOXY

Handling

Clean and degrease the surface with ONEBOND Cleaner and allow drying before applying the adhesive.

Put on the gloves to avoid skin contact with the adhesive.

Adhesive application using a 22 g syringe: (1) Remove the syringe cap and dispense a small amount of adhesive to make sure that both streams are flowing uniformly and freely. (2) Connect the static mixer to the syringe outlet. (3) The first 3 g of adhesive should be discarded to ensure a proper mix. (4) Begin dispensing the adhesive.

The excess of uncured adhesive can be cleaned with ketone type solvents.

Storage

	Unit	Resin (Component A) Bisphenol-A epoxy	Hardener (Component B) Mercaptan
Recommended temperature	°C	5 - 25	5 - 25
Storage stability / Shelf life (4)	Months	36	36

4: Stored in the original sealed containers at the recommended temperature.

Safety Considerations

Safety Data Sheets (SDS) are available from ONEBOND. SDS include information regarding the physical, health, and environmental health hazards, safety precautions, for products handling, storing and disposal. SDS are available in the language of the country or area of destination and may include locally applicable health and safety regulations. SDS are updated regularly and can be downloaded from www.onebondadhesives.com. ONEBOND encourages users to review the up-to-date SDS before handling or using any product.

Customer Notice

The data contained herein, obtained in Onebond laboratories, are given for information only; if specifics are required, please contact Onebond Technical Department. Onebond ensures abiding quality of supplied products according to its own specifics. Onebond cannot assume responsibility for the results obtained by others which methods are not under Onebond control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Onebond disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Onebond products. Onebond specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.