

ONEBOND 8740 HEAT RESISTANT EPOXY

Description

ONEBOND 8740 is a rigid, machinable, paintable, UV stable, two-component epoxy adhesive and gap-filler, exhibiting a long open time of 20 minutes. ONEBOND 8740 cures at room temperature and can be applied underwater. ONEBOND 8740 shows an outstanding heat resistance and passes the UL94 V0 flammability test. ONEBOND 8740 bonds well rigid substrates such as metals, rigid plastics, ceramic, wood, among others.

Typical component properties⁽¹⁾

	Unit	Resin (Component A) Bisphenol-A epoxy	Hardener (Component B) Mixture	Test Method
Appearance		Off-white viscous liquid	Black	
Odor		Light	Light	
Density @+25°C	g/ml	1,21	1,18	
Viscosity @+25°C	cP	22,000 – 48,000	20,000 – 45,000	
Flash Point	TCC, °C	12	>258	

	Unit	Mixture
Appearance		Grey non sagging
Density @+25°C	g/ml	1.2
Mix Ratio by Volume	R:H	2:1
Mix Ratio by Weight	R:H	2:1

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

Typical curing properties⁽¹⁾

	Unit	Mixture
Open time	Minutes	20
Tack-free time	Hours	4
Sanding/Painting time	Hours	4
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	>40	ASTM D-638
Elongation at Break	% at 20%	3	ASTM D-638
Hardness Shore A		98	ASTM 2240

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	Unit	Mixture
Glass Transition Temperature	°C	71
Temperature range	°C	<150
Maximum gap	mm	5
UL94 Flammability Standard		V0

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Fixture time

Substrate	Unit	Mixture
Plastics Polycarbonate, ABS, PVC, Phenolic Resin.	Hours	4
Metals Aluminum, Mild Steel, Cold Rolled Steel, Zinc.	Hours	4
Wood Pine, Beech, Oak, Fir, Teak, Balsa, Chipboard, Baywood.	Hours	4
Others Ceramic, Glass	Hours	4

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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

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

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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 50 g coaxial cartridge: (1) Insert the coaxial cartridge into the application gun. (2) Remove the cartridge cap and dispense a small amount of adhesive to make sure that both streams are flowing uniformly and freely. (3) Connect the static mixer to the syringe outlet. (4) The first 3 g of adhesive should be discarded to ensure a proper mix. (5) Begin dispensing the adhesive.

For hand mixing, dispense the desired amount of the adhesive and mix thoroughly for approximately 15 seconds until a uniform color is obtained.

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

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