

ONEBOND 7790 2K STRUCTURAL

Description

ONEBOND 7790 is a transparent, mechanizable, paintable, UV stable, two-component cyanoacrylate based adhesive. ONEBOND 7790 cures at room temperature and exhibits instant adhesion to wood, rubbers, metals and most plastics. ONEBOND 7790 can also be used as a gap-filler, exhibiting an open time of 3 – 4 minutes.

Typical component properties⁽¹⁾

	Unit	Resin (Component A) Cyanoacrylate	Activator (Component B) Mixture	Test Method
Appearance		Transparent gel	Transparent gel	
Odor		Light	Light	
Density @+25°C	g/ml	1,12	0,91	
Viscosity @+25°C	cP	70,000 – 90,000	70,000 – 90,000	
Flash Point	TCC, °C	80	<160	
	Unit	Mixture		
Appearance		Transparent non sagging		
Density @+25°C	g/ml	1.02		
Mix Ratio by Volume	R:H	4:1		
Mix Ratio by Weight	R:H	4:1		
1: These are typical values and should not be construed as specifications.				

Typical curing properties⁽¹⁾

	Unit	Mixture
Open time	Minutes	3 – 4
Tack-free time	Minutes	5 – 6
Sanding/Painting time	Minutes	10 – 15
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	2,7	ASTM D-638
Elongation at Break	%	9	ASTM D-638
Hardness Shore A			ASTM 2240

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	Unit	Mixture
Glass Transition Temperature	°C	
Temperature range	°C	<150
Maximum gap	mm	10
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Fixture time

Substrate	Unit	Mixture
Plastics PC, ABS, PVC, Phenolic Resin.	Seconds	20 – 40
Metals Aluminum, Mild Steel, Cold Rolled Steel, Zinc.	Seconds	
Wood Pine, Beech, Oak, Fir, Teak, Balsa, Chipboard, Baywood.	Seconds	
Flexible substrates Noprene, NBR, Leather, Fabric	Seconds	
Others Ceramic, Glass	Seconds	
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	14 – 16 ⁽³⁾	ISO 4587
ABS	N/mm ²	10 – 12 ⁽³⁾	ISO 4587
PVC	N/mm ²		ISO 4587
EPDM	N/mm ²		ISO 4587
PMMA	N/mm ²	8 – 9 ⁽³⁾	ISO 4587
Mild Steel	N/mm ²	17 – 20 ⁽²⁾	ISO 4587
Aluminum	N/mm ²		ISO 4587
Pine wood	N/mm ²	11 – 13 ⁽³⁾	ISO 4587
Beach Wood	N/mm ²	12 – 14 ⁽³⁾	ISO 4587
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2: Cohesive failure of the adhesive. 3: Substrate failure			

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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	12	12

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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