

ThreeBond 1782

Cyanoacrylate Instant Adhesive

ThreeBond **1782** is a solvent free cyanoacrylate instant adhesive. It cures instantly at room temperature after assembly. A very small quantity is enough to provide high shear strength on a wide variety of materials.

1. Features

- Cyanoacrylate Ethyl
- One component solvent free
- Moisture curing
- Service temperature : -40 / +120°C
- Impact and heat resistance

2. Properties

Before curing

Test	Results	Units
Colour	Transparent	-
Viscosity at 25°C	100	mPa.s
Specific gravity at 25°C	1.07	-
Setting time	NBR Fe	10 20
		s

After curing

Test	Results	Units
Dielectric breakdown voltage	28	kV/mm
Volume resistivity	1.3×10^{14}	$\Omega \cdot \text{cm}$
Surface resistivity	2.0×10^{15}	Ω
Dielectric dissipation factor		-
at 1 MHz	2.928	
at 1 kHz	3.477	
at 50 Hz	3.775	
Dielectric constant		-
at 1 MHz	0.0323	
at 1 kHz	0.0464	
at 50 Hz	0.1236	

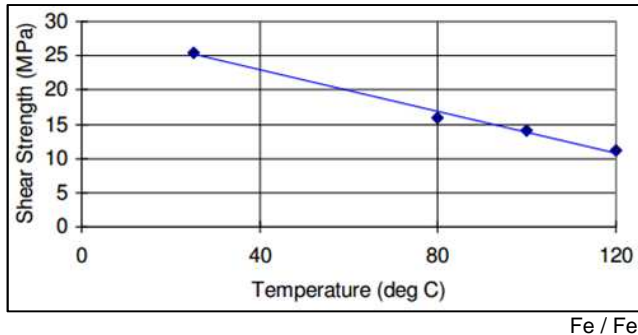
*: Material failure

Shear strength

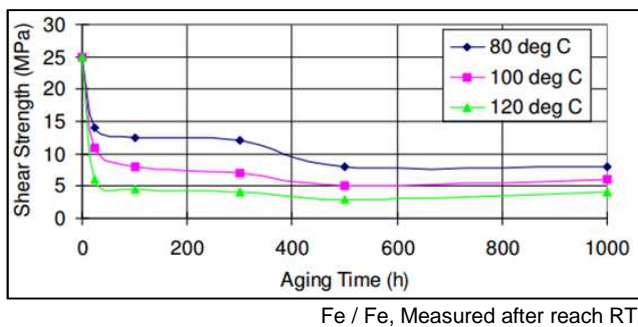
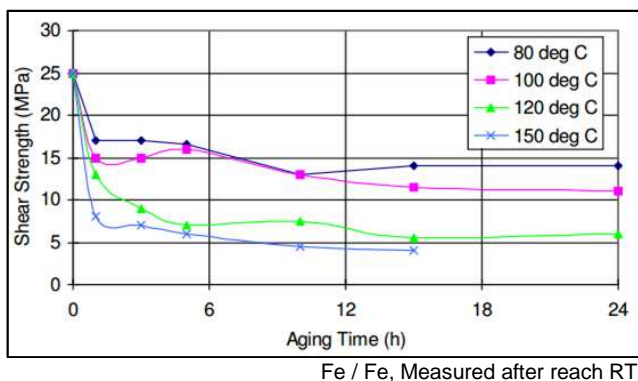
Materials	Shear strength	Units
Steel	25.5	MPa
Steel / Aluminium	10.9	MPa
Steel / Stainless	18.6	MPa
Steel / Copper	13.1	MPa
Steel / Brass	14.1	MPa
Aluminium	17.8	MPa
Aluminium / Stainless	11.3	MPa
Aluminium / Copper	9.8	MPa
Aluminium / Brass	17.1	MPa
Stainless	18.4	MPa
Stainless / Copper	11.6	MPa
Stainless / Brass	16.8	MPa
Copper	13.7	MPa
Copper / Brass	13.9	MPa
Brass	15.1	MPa
Hard PVC	*	MPa
Polycarbonate	*	MPa
Phenol	*	MPa
6-Nylon	5.0	MPa
6.6-Nylon	*	MPa
Acrylonitrile butadiene styrene	*	MPa
Epoxy FR4	11.8	MPa
Polybutylene terephthalate	1.7	MPa
Polyphenylene ether	*	MPa
Polyphenylene sulfide	4.0	MPa
High impact polystyrene	*	MPa
Acrylic	*	MPa
POM	1.6	MPa
Polystyrene	*	MPa
Natural rubber	*	MPa
Chloroprene rubber	*	MPa
Nitrile butadiene rubber	*	MPa
Styrene butadiene rubber	*	MPa
EPDM	*	MPa

Data given here were compiled to the best of our knowledge and are based on experiments and tests of our Company. We cannot guarantee the results obtained through the use of our products, and all products are sold and samples given without any warranty, expressed or implied, of fitness for any particular purpose or otherwise and upon condition that the user shall make his own tests to determine the suitability of the product for his purpose.

Shear strength Vs. Temperature



3. Ageing tests



4. Handling

- Before use, please refer to the safety data sheet.
- Prior to opening the container, let it reach room temperature to avoid condensation inside.
- To obtain optimal results, remove humidity, grease and other impurities from the surfaces to be assembled.
- Depending on the materials (dimensions and surface roughness), apply an appropriate and

uniform amount of liquid gasket on the surface, then assemble rapidly.

- If needed, the use of our activator TB 1796B may reduce the curing time.
- For hard to bond materials (e.g. PE, PP), the use of our primer TB 1797 or TB 7797 may improve adhesion properties.
- The product once transferred into another container should not be returned to the original one. Any excess product should be wiped out using a cloth.
- Excess product may be removed using TB2890D cleaner.
- Keep the glue in its original container tightly sealed and store it in a dark, dry and well ventilated place at 5 ~ 10°C.

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