

MC20 Superglue



Description

MC20 from Multicomp is a low viscosity instant adhesive suitable for bonding a wide variety of materials. This multi-use adhesive bonds in seconds and is ideal for applications where a fast cure speed is required. MC20 is formulated for bonding difficult to adhere substrates, absorbent or porous surfaces.

Properties of Material

| Properties | Value | Unit |
|--------------------|---------------|----------------------------------|
| Chemical type | Ethyl | |
| Appearance | Clear Liquid | |
| Specific Gravity | 1.06 | |
| Viscosity* | 17 - 22 20 | (Range) cPs Typical Value cPs |
| Tensile Strength** | 21 | N/mm ² |
| Fixture Time | 3 - 30 | Secs. |
| Full Cure @ 20°C | 24 | Hours |
| Max. Gap Fill | 0.1 | mm |
| Flash Point | >85 | °C |
| Shelf Life @ 5°C | 12 | Months |
| Temperature Range | -50 to +80 | °C |

* Cone and Plate Rheometer, controlled stress

** ISO 6922

Typical Curing Performance

| Substrate | Cure Time (Seconds) | Substrate | Cure Time (Seconds) |
|-------------------------|---------------------|--------------|---------------------|
| Steel/steel (degreased) | 5 - 20 | Chipboard | 25 - 70 |
| Aluminium | 2 - 10 | Fabric | <10 |
| ABS/ABS | 2 - 7 | Leather | 3 - 20 |
| PVC | 3 - 10 | Paper | 2 - 10 |
| Nitrile Rubber | <5 | Wood (Balsa) | 2 - 5 |

Strength Development

After 2 minutes on steel: ~50% of final strength

Cure Speed Vs. Environmental Conditions

Cyanoacrylate adhesives require surface moisture on the substrates in order to initiate the curing mechanism. The speed of cure is reduced in low humidity conditions. Low temperatures will also reduce cure speed. All figures relating to cure speed are tested at 21°C.



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Cure Speed Vs. Bond Gap

Multicomp cyanoacrylates give best results on close fitting parts. The product should be applied in a very thin line in order to ensure rapid polymerisation and a strong bond. Excessive bond gaps will result in slower cure speeds.

Chemical / Solvent Resistance

Multicomp cyanoacrylates exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, ethanol, propanol and freon. Cyanoacrylates are not resistant to high levels of moisture or humidity over time.

Typical Environmental Resistance

Hot Strength

Multicomp cyanoacrylate adhesives are suitable for use at temperatures up to 80°C. At 80°C the bond will be approximately 70% of the strength at 21°C. The bond strength at 100°C is approximately 50% of full strength at 21°C.

Heat Ageing

Multicomp cyanoacrylates retain over 90% of their strength when heated to 80°C for 90 days and then tested at 21°C. Heating the bond to 100°C and then testing at 21°C gives bond strength of approximately 50% of initial strength.

Storage

Store in a cool area out of direct sunlight. Refrigeration to 5° C gives optimum storage stability.

Part Number Table

| Description | Part Number |
|--------------------|-------------|
| 20g MC20 Superglue | MC001791 |

