

MC100X Superglue



Description

MC100X from Multicomp is a multi-purpose, medium viscosity instant adhesive, suitable for rapidly bonding a wide variety of materials. This versatile adhesive bonds in seconds and is ideal for applications where a rapid cure speed is required. MC100X is specially formulated for instant bonding of common substrates.

Properties of Material

Properties	Value	Unit
Chemical type	Modified Ethyl	
Appearance	Clear Liquid	
Specific Gravity	1.06	
Viscosity*	90 - 130 110	(Range) cPs Typical Value cPs
Tensile Strength**	7.5 - 12.5 15 - 25	After 2 minutes M Pa After 24 Hours M Pa
Fixture Time***	1 - 30	Secs.
Full Cure @ 20°C	24	Hours
Max. Gap Fill	0.15	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

*** Depending on substrates and application conditions

Typical Curing Performance

Substrate	Cure Time (Seconds)	Substrate	Cure Time (Seconds)
Steel/steel (degreased)	5 - 20	Wood (Balsa)	1 - 3
Aluminium	2 - 10	Wood (Oak)	90 - 180
Chromated Steel	<3	Chipboard	25 - 70
Nitrile Rubber	<5	Fabric	<10
EPDM	3 - 10	General Leathers	3 - 20
ABS/ABS	<3	Fully Finished Leather	<5
PVC	3 - 10	Paper	2 - 10
Polycarbonate	4 - 10	Card	1
Phenolic	<3		



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Strength Development

After 2 minutes on steel : 50% of final strength
After 10 minutes on rubber : 6MPa

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.

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.

Typical Environmental Resistance

Hot Strength

Multicomp ethyl 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 ethyl 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
5g MC100X Superglue	MC001789

