

# MC90K Superglue



## Description

MC90K from Multicomp is a very high viscosity instant adhesive gel, suitable for bonding a wide variety of materials. This advanced formulation gel is designed for high strength multi-purpose bonding and is ideal for adhering poorly mating components and porous substrates. Faster bonding is achieved through greater surface insensitivity and performance is enhanced further with use on fabrics, leather, card and wood. MC90K is suitable for use on vertical and over-head surfaces, as it will not drip or slump.

## Properties of Material

Properties	Value	Unit
Chemical type	Ethyl	
Appearance	Clear Gel	
Specific Gravity	1.1	
Viscosity*	Thixotropic 50,000 - 90,000	(Range) cPs
Tensile Strength**	21	N/mm <sup>2</sup>
Fixture Time	3 - 60	Secs.
Full Cure @ 20°C	24	Hours
Max. Gap Fill	0.5	mm
Flash Point	>85	°C
Shelf Life @ 5°C	12	Months
Temperature Range	-50 to +80	°C

\* Brookfield RVT, 'T-spindle' C @ 2.5rpm

\*\* ISO 6922 (Typical Value)

## Typical Curing Performance

Substrate	Cure Time (Seconds)	Substrate	Cure Time (Seconds)
Mild Steel (degreased)	15 - 30	Cardboard	25 - 35
ABS	10 - 15	Buna Rubber	~3
PVC	15 - 30	Wood (Balsa)	~3



# MC90K Superglue



## 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.

## 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
3g MC90K Superglue	MC001788

