

TECHNICAL DATA SHEET

My-T-Glue® 705

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METLOK PRIVATE LIMITED
(An ISO 9001 Certified Company)
W-27, M.I.D.C. Industrial Area
Kalmeshwar – 441 501, Nagpur

Product Description

My-T-Glue® 705 is a low viscosity fast cure one component cyanoacrylate designed for general purpose bonding of substrates viz., Metal, various plastics and elastomeric at room temperature.

Properties of Material

Technology	: Cyanoacrylate
Chemical type	: Ethyl Cyanoacrylate
Appearance	: Transparent to straw colored liquid
Sp. Gravity @ 25°C	: 1.06
Viscosity @ 25±2 °C,	: 2-6 cP
Brookfield, Spindle #1,	
Speed 100 r.p.m.	
Secondary cure	: Activator
Service Temperature	: -50 °C to 100 °C
Key Substrate	Metals, Plastics and Rubbers.
Application	: Bonding

Curing Performance

Under normal conditions, the atmospheric moisture initiates the curing process. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical/solvent resistance is developed

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The fixture time achieved on different materials at 25°C / 60 % relative humidity is shown below. This is defined as the time to develop shear strength of 0.1 N/mm².

Fixture Time, Seconds

Mild Steel (degreased)	: 5 to 10
Aluminium	: 5 to 15
Neoprene	: <5
Nitrile	: <5
ABS	: 3 to 5
PVC	: 10 to 10
Polycarbonate	: 30 to 50
Phenolic	: 5 to 20

Cure Speed vs. Bond Gap

The rate of cure will depend on the bond-line gap. Thin bond lines result in high cure speeds, increasing the bond gap will decrease the rate of cure.

Cure Speed vs. Activator

Where cure speed is unacceptably long due to large gaps, applying activator to the surface will improve cure speed. However, this can reduce ultimate strength of the bond and therefore testing is recommended to confirm effect.

Adhesive Properties of cured material

After 24 hours @ 25±2 °C

Lap Shear Strength, ASTM D 1002

Steel	: 15 to 20 N/mm ²
Aluminum	: 11 to 20 N/mm ²
ABS	: 4 to 5 N/mm ²
PVC	: 4 to 6 N/mm ²
Polycarbonate	: 4 to 8 N/mm ²
Phenolic	: 7 to 10 N/mm ²
Neoprene	: 8 to 10 N/mm ²
Nitrile	: 7 to 10 N/mm ²

After 24 hours @ 25±2 °C

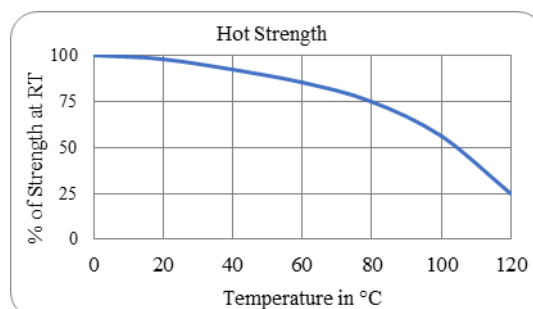
Tensile Strength, ASTM D 897

Steel	: 10 to 17 N/mm ²
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Hot Strength

Test	: Lap Shear Strength, ASTM D 1002
Substrate	: Steel
Cure	: 24 hrs @ 25±2 °C

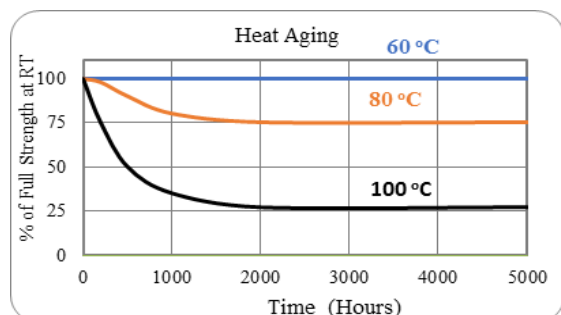
Tested at temperature indicated.



Heat Aging

Test : Lap Shear Strength, ASTM D 1002
Substrate : Steel
Cure : 24 hrs @ 25±2 °C

Aged at temperature indicated and tested @ 25±2 °C.



Chemical/Solvent Resistance

Test : Lap Shear Strength, ASTM D 1002
Substrate : Steel
Cure : 24 hrs @ 25±2 °C

Aged under condition indicated and tested @ 25±2 °C.

Environment	Temp (°C)	% of initial strength		
		100 hrs	500 hrs	1000 hrs
Engine oil	40	100	100	100
	100	90	80	78
Water Glycol	40	100	100	100
	87	100	60	50
Ethanol	40	100	100	100
Isopropanol	40	100	100	100
1,1,1-Trichloroethane	40	100	100	95

Directions for Use

1. For best performance clean all surfaces (external and internal) with a cleaning solvent. The bond surfaces should be clean and free from grease.
2. This product performs best in thin bond gaps (0.05 mm).
3. Excess adhesive can be dissolved with cleanup solvents, nitro methane or acetone.
4. To prevent the product from clogging in the nozzle, do not allow the tip to touch metal surfaces during application.
5. Adhesive can be applied using dispensing tips supplied. Once the adhesive is dispensed, the bonded parts should be held in contact until the part has developed handling strength.

Handling

- ❖ For safe handling My-T-Glue® 705 must be handled in a manner as indicated in Material Safety Data Sheet (MSDS) and in compliance with relevant local regulations.
- ❖ My-T-Glue® 705 can affect certain plastics particularly thermoplastic materials or coatings. It is recommended to check all surfaces for compatibility before use.
- ❖ My-T-Glue® 705 is non-volatile and non-flammable at room temperature.

Storage

- ❖ Store My-T-Glue® 705 in a cool, dry location in unopened containers at a temperature between 20°C to 25°C.
- ❖ Store away from sunlight and heat sources.
- ❖ Shelf life: Six month from date of manufacture when stored in above mentioned conditions.
- ❖ To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact our technical service center R&D Center.

Pack Size

My-T-Glue® 705 is ideally available in 20 gm and 50 gm.

Note

All statements, technical information and recommendations set forth herein are based on tests which Metlok Private Limited, believes to be reliable. However, Metlok Private Limited does not guarantee their accuracy or completeness. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In no case will Metlok Private Limited be liable for direct, consequential economic or other damages.

METLOK PRIVATE LIMITED

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