

TECHNICAL DATA SHEET

My-T-Bond® 2709

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METLOK PRIVATE LIMITED
(An ISO 9001 Certified Company)
W-27, M.I.D.C. Industrial Area,
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Product Description

My-T-Bond® 2709 is a high strength, 2K Structural epoxy Room temperature curing, thixotropic adhesive. It bonds and repairs a wide variety of materials. My-T-Bond® 2709 offer superior thermal shock resistance and impact resistant properties.

Applications:

- ❖ Used for industrial assemblies for multi-purpose applications viz. spindle motor assembly, magnet bonding.
- ❖ Used for bonding heavy metal parts.
- ❖ Suitable for bonding electronic components and mesh to frames.
- ❖ Used for bonding of metals, electronic components, GRP structures and many other items where a higher than normal temperature or more aggressive environment is to be encountered in service.

Properties

Technology	:	Epoxy
Components	:	Two component - required mixing
Mix ratio by weight	:	100 : 50
Part A: Part B		
Mix ratio by Volume	:	2 : 1
Part A: Part B		
Appearance	:	Off white
Cure	:	Room Temperature
Pot life at 25±2 °C	:	30 min
(100gm mix.)		
Total Cure at 25±2 °C	:	24 Hrs.
Operating temperature	:	-50 °C to 150°C
Applications	:	Bonding

Physical Properties of Material

Properties	Part A (Resin)	Part B (Hardener)
Colour	Off White	Amber
Sp Gravity @ 25 °C	1.1	1.05
Viscosity, Brookfield @25±2°C, Spindle 6, Speed 10 r.p.m.	35000-50000 cP	15000-20000 cP

Adhesive Properties of Cured Material

Lap Shear Strength, ASTM D 1002; After 24 hrs.

Steel : 25-30 N/mm²

Tensile Strength, ASTM D897; After 24 hrs.

Steel : 25-30 N/mm²

Hardness Durometer Shore : 75±3
D, ASTM D2240

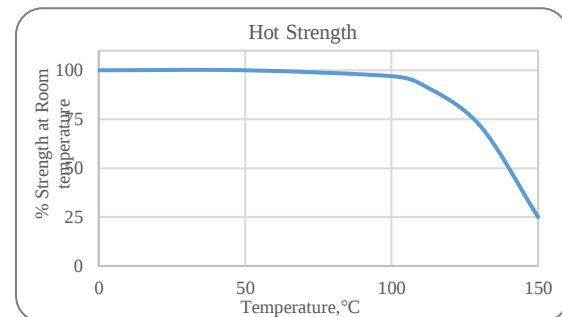
Hot Strength

Test : Lap Shear Strength, ASTM D1002

Substrate : Steel

Cure : 24 hrs @ 25±2 °C

Tested at temperature indicated



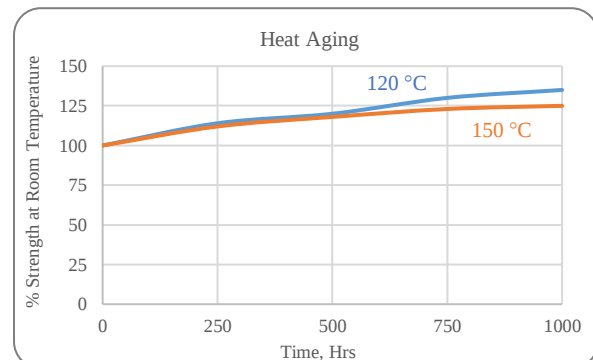
Heat Aging

Test : Lap Shear Strength, ASTM D1002

Substrate : Steel

Cure : 24 hrs @ 25±2 °C

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



Thermal Cycling

Test Procedure	:	Substrate (Steel) cure as per cure procedure indicated above and then subjected to 140 to -40 °C alternatively. (Half hours at 140 °C and then subjected to half hours at -40 °C, such Six cycles were performed).
Substrate	:	Steel
Cure Procedure	:	24 hrs @ 25±2 °C
Strength	:	% Initial Strength Retained
Lap Shear	:	100

Chemical/Solvent Resistance

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

Aged under condition indicated and tested @ 25 °C

Environment	Temp (°C)	% of Initial Strength
		500 hrs.
Engine oil	120	142
Gear Oil	120	130
Diesel	25	120
Water Glycol (50/50)	87	100

Directions for Use

- ❖ For best performance surfaces for bonding should be clean, dry and free of grease. For structural bonds, special surface treatments can increase the bond strength and durability.
- ❖ To use, Part A and Part B must be blended. Product can be applied directly.
- ❖ Using bulk containers, mix thoroughly by weight or volume in the proportions specified in properties of uncured material section. For hand mixing, weigh or measure out the desired amount of Part A and Part B mix thoroughly. Mix approximately 5 min after uniform colour is obtained.
- ❖ Do not mix quantities greater than 4 kg as excessive heat build-up can occur. Mixing smaller quantities will minimize the heat build-up.
- ❖ Apply the adhesive as quickly as possible after mixing. Parts should be assembled immediately after mixed adhesive has been applied.
- ❖ Working life of the mixed adhesive is 30 minutes at 25°C. Higher temperature and larger quantities will shorten this working time.
- ❖ Keep the assembled parts from moving during cure. The joint should be allowed to develop full strength before subjecting to any service loads.

- ❖ Excess uncured adhesive can be wiped away with organic solvent (e.g. acetone / MEK).
- ❖ After use and before adhesive hardens mixing and dispensing equipment should be cleaned with hot soapy water.
- ❖ Substrate with low surface energy should be bonded with Activator 2040.

For use of cartridge with Dispensing gun

- ❖ Remove cap from tips. Affix static mixer.
- ❖ Insert cartridge into applicator gun.
- ❖ Pull trigger and epoxy will mix properly as it is dispensed.

Working

- ❖ Working time and cure time depends on temperature and mass:
- ❖ The higher the temperature, the faster the cure.
- ❖ The larger the mass of the material mixed, the faster the cure.
- ❖ To speed the cure of epoxies at low temperatures:
 - Store epoxy at room temperature.
 - Pre-heat repair surface until warm to the touch.
- ❖ To slow the cure of epoxies at high temperatures:
 - Mix epoxy in small masses to prevent rapid curing.
 - Cool resin/hardener component(s).

Pack Size

My-T-Bond® 2709 is ideally available in 50 ml and 400 ml dual cartridge.

Storage and Handling

- ❖ Store product in unopened container in a cool, dry location at 25±2°C.
- ❖ Keep away from moisture, direct sunlight and heat.
- ❖ My-T-Bond® 2709 will exhibit a shelf life of 6 months from the date of manufacture when stored in above mentioned condition.
- ❖ 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 Centre/R&D center.

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

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