TECHNICAL DATA SHEET

# My-T-Bond® 2605

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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-Bond® 2605 is a heat curable one component high viscosity, industrial grade epoxy adhesive. This one component-no mix formulation develops tough and strong bonds which provide excellent impact strength, excellent mechanical and electric resistance. It has excellent resistant to a wide range of chemicals and solvents, and acts as an excellent electrical insulator.

## Applications:

- For bonding of magnets, magnet core assembly where high mechanical strength and high temperature performance is required.
- For bonding various plastic, metal, glass, wood, ceramic, rubber and masonry materials where high strength is required.

## Properties

| | | |
|---|---|---|
| Technology | : | Epoxy |
| Chemical type | : | Epoxy |
| Component | : | Single |
| Appearance | : | Grey |
| Sp. Gravity @ 25 $^0$C | : | 1.1 |
| Viscosity@25±2°C, Brookfield, DV-II, Spindle no. 7, Speed 2.5 r.p.m. | : | 5,00,000-6,00,000 cP |
| Cure | : | Heat Cure |
| Cure Schedule @150 °C | : | 60 minute |
| @120 °C | : | 120 minutes |

## Cure

My-T-Bond® 2605 can be cured for 60 minutes at 150 °C. Faster cures can be achieved by using higher temperatures. Cure time will depend upon factors such as part geometry, materials to be bonded, bond line thickness and efficiency of the oven. Cure schedule should be confirmed with actual production parts and equipment. A clamping pressure of 15 psi is recommended to ensure that good contact in maintained during the cure cycle.

## Adhesive Properties of Cured material

Properties after **Heat cure@120 °C for 120 minutes** and cool to room temperature and tested @ 25±2 °C.

Lap Shear Strength, ASTM D 1002
Steel : ≥ 20 N/mm$^2$

Tensile Strength, ASTM D 897
Steel : ≥ 18 N/mm$^2$

Hardness, Durometer-Shore D, ASTM D 2240 : 70 - 75

Properties after **Heat cure@150 °C for 60 minutes** and cool to room temperature and tested @ 25±2 °C.

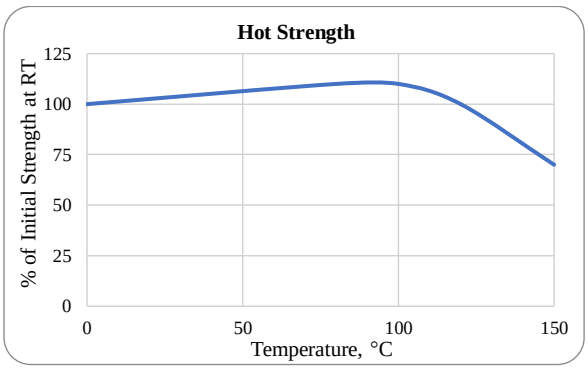
Lap Shear Strength, ASTM D 1002
Steel : ≥ 20 N/mm$^2$

Tensile Strength, ASTM D 897
Steel : ≥ 18 N/mm$^2$

Hardness, Durometer-Shore D, ASTM D 2240 : 70 - 75

## Hot Strength

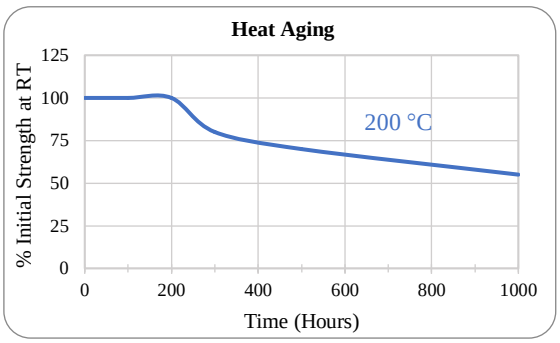
| | | |
|---|---|---|
| Test | : | Lap Shear test, ASTM D1002 |
| Substrate | : | Steel |
| Cure | : | 60 min @ 150 $^0$C and cool to 25±2 $^0$C for 2 hours and tested at temperature indicated. |




## Heat Aging

| | | |
|---|---|---|
| Test | : | Lap Shear test, ASTM D1002 |
| Substrate | : | Steel |

Cure : Cured for 60 min @ 150 $^0$C and cool to @ 25±2 $^0$C for 2 hours and then subjected to indicated temperature for ageing.




## Thermal Cycling

Test : Lap Shear test, ASTM D1002
Substrate : Steel
Cure : Cured for 60 min @ 150 $^0$C and cool to @ 25±2 $^0$C for 2 hours and then subjected to 150 $^0$C to -50 $^0$C alternatively for 5 cycles.

| **Strength** | : | **% Initial strength retained** |
|---|---|---|
| Overlap Shear | : | 100 |
| Tensile | : | 100 |
| Impact | : | 100 |

## Chemical/Solvent Resistance

Test : Lap Shear test, ASTM D 1002
Substrate : Steel
Cure : Cured for 60 min @ 150 $^0$C and cool to @ 25±2 $^0$C and then aged at conditions indicated and tested at 25±2 $^0$C.

| **Environment** | **Temp ($^0$C)** | **% Initial Strength Retained After** | |
|---|---|---|---|
| | | **100 hrs.** | **200 hrs.** |
| Air | 120 | 110 | 100 |
| Gear oil | 120 | 110 | 95 |
| Engine oil | 120 | 100 | 95 |
| Brake fluid | 25 | 100 | 88 |
| Diesel | 25 | 100 | 90 |
| Coolant | 87 | 90 | 80 |

## Direction for Use

- For the best performance, the surface should be clean, dry free from oils, paints and dust because the surface preparation is directly depends upon bonding strength and various mechanical properties
- Apply the adhesive with the help of clean glass rod or suitable means on the substrate
- To avoid skin contact use safety glove
- For maximum bond strength apply adhesives on both the surfaces and then wipe of the excessive adhesive
- During curing process make sure that the substrates remain intact, clamps may be used

## Storage and Handling

- Store product in a cool and dry location in unopened container at 5 °C.
- My-T-Bond® 2605 will exhibit a shelf life of 3 months from the date of manufacture if stored as indicated above. For longer Shelf life refrigeration must be required
- To prevent contamination of unused product, do not return any material to its original container
- For further specific information, contact your local Technical Service 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 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.

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**METLOK PRIVATE LIMITED**
(Bonding and Sealing Solutions)
An ISO 9001: 2015 Certified Company
Tel.: 07118-271543/271170/272468
Fax: 07118-272470
Visit us at: www.metlok.in