



PRODUCT DATA SHEET

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M.008

250°F Curable Epoxy Resin System

Description

TB CARBON **M.008** is a 250°F (121°C) amine cured Excellent tack epoxy resin system for general purpose.

Features

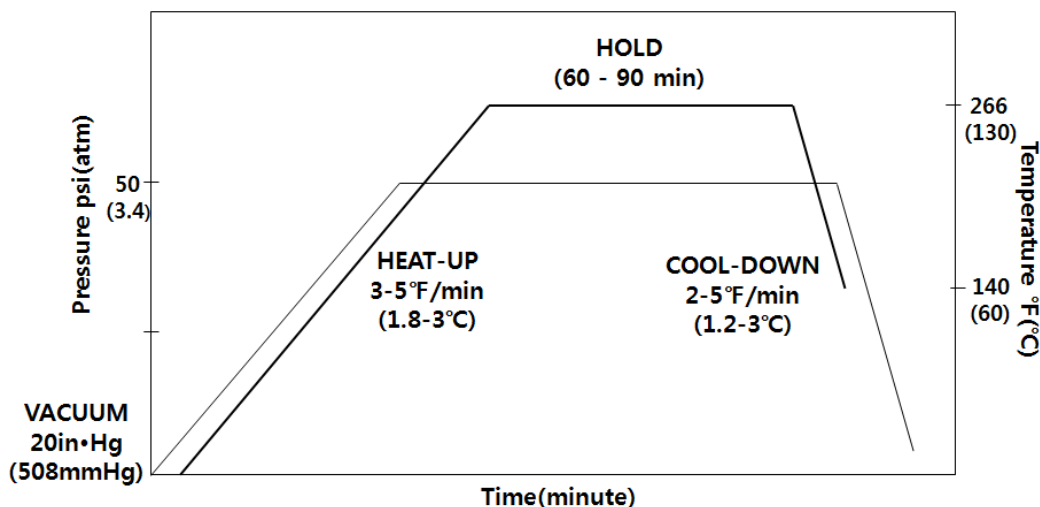
- Good usability and long tack life with excellent tack
- Excellent mechanical properties for general purpose
- Autoclave / Press-mold / Vacuum bag / Press bag/ Tube rolling process
- Long Shelf life : 12 months at 0°F (-18°C), 1 month at 77°F (25°C)

Application

- Carbon Fiber and Fabric
- Aramid
- S-Glass
- E-Glass
- Other specialty fibers and fabrics

Typical Processing condition

TB CARBON **M.008** can be cured at 250°F(121°C) to 285°F(141°C), depending on service temperature requirements, recommended cure cycle is 50Psi (3.4atm), 3-5°F (1.8-3°C)/min ramp to 266°F (130°C), hold for 60-90 minutes and cool at 2-5°F (1.2-3°C) to 140°F (60°C).



Physical Properties

| | | |
|-------------------------|------------------|---------------|
| Viscosity Level | | Medium |
| Toughened | | Medium |
| Resin Flow (Carbon U/D) | | 12 ± 5 wt% |
| Gel time | at 250°F (121°C) | 9 ± 2 min |
| | at 266°F (130°C) | 5 ± 2 min |
| Tg (DMA) | | 266°F (130°C) |

Mechanical Properties

[24t] Standard Modulus Uni-directional Carbon Fiber tape reinforcement

Carbon fiber : Mitsubishi Rayon TR50

Resin content : 30wt%

Cure condition : Autoclave cure at 266°F(130°C) for 90min, 50psi(3.4atm)

Test condition : *Room Temperature / Dry

All data are normalized to 60% fiber volume, except for ILSS and 90° Tensile

| Property | Test Method | Values (*RT/Dry) |
|-----------------------------------|-------------|------------------|
| 0° Tensile Strength (Mpa) | ASTM D 3039 | 2700 |
| 0° Tensile Modulus (Gpa) | | 134 |
| 90° Tensile Strength (Mpa) | | 70 |
| 0° Flexural Strength (Mpa) | ASTM D 790 | 1650 |
| 0° Flexural Modulus (Gpa) | | 135 |
| 0° Compression Strength (Mpa) | ASTM D 695 | 1210 |
| Inter Lamina Shear Strength (Mpa) | ASTM D 2344 | 90 |

- The result shall be within the ten percent range of average value.

- All values are average and do not constitute a specification

Storage

M.008 should be stored as received in a cool dry place or in a refrigerator. After removal from refrigerator storage, M.008 should be allowed to reach room temperature before opening the polyethylene bag, thus preventing condensation (a full reel in its packaging can take up to 48 hours). The prepreg has a guaranteed shelf life at - 18 °C of 12 months. Tack life is 30days at 25°C(77°F).