TECHNICAL DATA SHEET



B275 EPOXY

Form

275°F (135°C) Epoxy Matrix

FEATURES

- Extended Shelf Life
- Excellent Tack and Handling
- High Toughness
- High Clarity

SHELF LIFE

Out Life: 30 days at 75°F
Frozen Storage Life: 12 months at <0°F (-18°C)
Tack Life: 10 days at 75°F

CONTACT

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DEFINITION

General purpose highly toughened 275°F curing epoxy resin supplied with woven, and non-woven prepreg forms. Offers excellent mechanical properties in hot/wet environments, good clarity, with a service temperature of up to 285°F.

APPLICATIONS

- Space Launch Vehicles
- Automobile
- Sporting Goods
- Aircraft Structures
- Medical
- Honeycomb Core Structures

NEAT RESIN PROPERTIES

- Density: 1.1 g/cc

- Dry Tg (DMA) with 260°F (121°C) Cure: 285°F (Onset)

- Gel Time: 2 min at 275°F (135°C)

- Resin Flow: 10% at 350°F (176°C) for 5 min

RESIN VARIATIONS

- B275: Standard Version

- B275FP: Fire Protection Version (FAR 25.853)

- B275PG: Press Grade Tack Available

REINFORCEMENTS

- Carbon Fabrics
- Glass Fabrics
- Aramid Fabrics

CURE CYCLE (AUTOCLAVE)

- Apply full vacuum (24 inches Hg minimum).
- Apply 85 psig, vent bag when 15 psig is reached.
- Heat to 190°F (2-5°F/min).
- Hold at 190°F for 30-60min.
- Heat to 260°F (2-5°F/min).
- Hold at 260°F (and 90 psig) for 120 minutes minimum.
- Cool at 2-5°F/min to 150°F and vent pressure (temperature based on lagging thermocouple).

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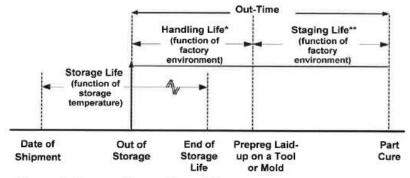
MECHANICAL PROPERTIES

Property	Condition	Method	Carbon Fabric Prepreg (*)
Tensile	RTD	D3039	85 – 90 ksi
Tensile Modulus	RTD	D3039	9.5 Msi
Compression	RTD	D6641	80 Ksi
Compression Modulus	RTD	D6641	8.5 Msi
Flexural Strength	RTD	D790	135 Ksi
Flexural Modulus	RTD	D790	8 Msi
Short Beam Shear	RTD	D2344	10 Ksi

(*) Fabric: T300 3K PW (206gsm) – 60% Fiber Volume

HANDLING AND SAFETY

Wear the appropriate personal protective equipment (PPE) including respirator, powder free latex gloves, and safety glasses when handling fibrous and resin materials. Allow pre-impregnated materials to warm at ambient temperature prior to opening the sealed bag until moisture does not condense on the packaging (i.e., prepreg temperature is above the dew point). No form or direct heat shall be used to accelerate the thawing process. Material should be sealed in an airtight bag and kept frozen when not being used. Material Safety Data Sheets (MSDS) are available upon request.



*a.k.a. application, assembly, or ambient work life

**a.k.a. mechanical or tool life

Figure 1: Definitions of Storage, Handling, Staging Life, and Out-Time.

SHIPPING

Prepreg is maintained at or 0°F during shipment by being packed in dry ice or by refrigeration.