



EY3804

Composite Repair and Structural Adhesive

EY3804 is a low viscosity, two-component epoxy system that offers low temperature cure, high temperature strength, and excellent resistance to hot water immersion. These properties make EY3804 an excellent choice for field repair of composite components, and may be considered as a permanent repair for service temperatures to 200°F.

EY3804 conforms to the requirements of BMS 8-301 Class 2 specification.

Technology / Base	Epoxy
Type of Product	Structural Adhesive
Components	Two Component
Curing	Room Temperature or Thermal Cure
Appearance / Color	Grey
Consistency	Liquid
Recommended Application	Composite Repair

Features and Benefits

- Composite field repair adhesive (permanent for service temperatures up to 200°F)
- Excellent Bonding to Metals, Composites, Coatings, and Most Plastics
- Excellent Chemical Resistance
- Suitable for MMD Dispensing Equipment
- Excellent Thermal Performance
- 100% Reactive
- Room Temperature Cure

Technical Data

Physical Properties (uncured)	Part A (base)	Part B (hardener)	Mixed
Viscosity	5,000 - 7,000 cPs	1,300 – 2,000 cPs	3,900 cPs
Color	Amber	Black	Dark Grey
Mix Ratio by Weight Part A	100	66	-

Physical Properties (cured)	Results	Notes
Specific Gravity - Mix	1.11	Maximum
Gel Time	40-44	Minutes
Service Temperature	-40°F to 200°F	Continuous Range
Hardness	82	Shore D
Elongation at Break	4.0%	ASTM D638

Tensile Shear Strength		
Aluminum, Acid etched at 25°C	26.9 MPa	ASTM D1002
Aluminum, Acid Etched at 90°C	17.32 MPa	
Aluminum, Acid Etched at 120°C	11.93 MPa	
CFRP UD	41.3 MPa	



Typical Laminate Properties

Substrate	Results	Notes
Compression Strength	47,000	psi
Compression Modulus	6,100,000	psi
Flexural Strength	113,500	psi
Flexural Modulus	3,200,000	psi
Tensile Strength	7,800,000	psi
Interlaminar Shear Strength	6,000	psi

*12 plies of Thorne 300, 3K 12.5 x 12.5 plain weave, 0.009 in. per ply. Vacuum bagged and cured 2 hours @ 130°F then 2 hours @ 250°F

Cure Profile

Conditions	Time
Full Cure @ 23°C	10-14 days
Full Cure @ 66°C	3 hours

Application Instructions

Surfaces must be clean, dry and free from grease, oil, paint, wax and weak oxide films and other surface contaminants. Chemical etching, sanding or grit blasting often gives the best results. Bring both components to room temperature prior to mixing. Just prior to using, blend the two components, Part A and Part B, in the ratio above. Mechanical mixing is preferable, but should be carried out at slow speeds (<300 rpm), taking as little air as possible into the adhesive batch. Spread a thin layer of the mixed adhesive on one or both of the parts to be bonded. Once the adhesive is applied, no open time is necessary. The surfaces can be assembled immediately. Parts should be assembled while the adhesive is still wet to the touch before it sets. The individual parts, the ambient temperature and the adhesive itself will dictate the open time permitted.

Storage Conditions

Product should be stored in a cool dry place out of direct sunlight. Shelf life is based on proper product storage conditions and temperature. Exposure to elevated temperatures can reduce shelf life.

Shelf Life Part A when stored 39°F or below is 6 months. Between 40°F and 80°F shelf life is 3 months.

Shelf Life Part B: 12 months when stored up to 80°F.

*Part B may be stored below 40°F with Part A without effecting shelf life.

Safety and Disposal

Please see the Material Safety Data Sheet (SDS) for proper handling and disposal instructions.

Specifications and Approvals

- BMS8-301 Class 2 (see QPL)

Note

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