

TECHNICAL DATA SHEET

AMC® 8575, 126-76-79 Engineered Structural Composite® (ESC®) Molding Compound

AMC® 8575 is a vinyl ester ESC® molding compound reinforced with 12K 2x2 Twill Carbon Fiber Fabric. It is designed for compression molding of components requiring high structural strength, light weight, and stiffness. It can also be co-molded with other ESC molding compounds such as AMC® 8590 to provide stiffening in selected areas of the component.

TYPICAL PROPERTIES | UNCURED

Form Rolled Sheet, width 25 & 50 inches	Carbon Fiber Content. Nominal 55%
Color Natural and Black	Shelf Life: @ 75°F 3 months
Areal Weight. 1272 gms/m ²	Carbon Fiber Length . . . Continuous 2x2 twill

TYPICAL PROPERTIES | CURED | “Machined” Specimen

Test	Procedure	Value
Specific Gravity, g/cc	ASTM D-792	1.45
Flexural Strength, psi (MPa) ¹	ASTM D-790	57,000 (393)
Flexural Modulus, psi (GPa) ¹	ASTM D-790	5.0 x10 ⁶ (34.4)
Tensile Strength, psi (MPa) ¹	ASTM D-3039	63,000 (434)
Tensile Modulus, psi (GPa) ¹	ASTM D-3039	6.0 x10 ⁶ (41.3)
Glass Transition Temp. °F (°C) TanDelta	ASTM D-7028	288 (142)

¹ Machined Properties are determined using specimen machined from molded 12”x12” panels with 80% mold coverage.

Molding Suggestions – AMC® 8575 can be molded at temperatures in the range of 260-310°F, with 280°F suggested as a starting point. Cure times will be dependent on molding temperature and part thickness and will typically be 5-10 minutes. Detailed molding suggestions are available on request. Cool molded parts at ambient temperature. A cooling fixture may be needed depending on part thickness and geometry.

Precautions – AMC® 8575 contains carbon fibers and should be handled carefully in order to minimize skin contact. Molding areas should be well ventilated to minimize exposure to fumes. Presses must be provided with local exhaust to remove vapors from work areas. If adequate ventilation is not available, a respirator approved for removing organic vapor must be used. Care must be taken to prevent contact of carbon fibers with electrical equipment.

Typical Uncured and Cured Properties tested each lot of – AMC® 8575:

- Fiber Content/Resin Content
- Specific Gravity
- Mat Weight, (Areal Density)

NO WARRANTY – The above information is offered for your consideration, investigation, and verification. No warranty, expressed or implied, is given as to the materials described on this Technical Data Sheet. Quantum Composites, Inc. specifically disclaims any warranty of merchantability or fitness for any particular purpose. Final determination of the suitability of this material is the sole responsibility of the buyer. Contact our sales representative for assistance in developing procedures to fit individual requirements.

This ESC® product is generally intended to be compression molded in matched-metal die molds. Strength values may be affected by the molding process. **The values presented in this data sheet are typical values and are not to be interpreted as product specifications.**