CORFIL® 658

CORFIL® 658 is a one-part epoxy material designed for use in insert or edge filling of honeycomb structures. The low viscosity of CORFIL® 658 makes it especially suitable for automated or hand filling of small cell sized honeycomb. The thixotropic nature of CORFIL® 658 ensures that there is no slump or resin separation during cure. CORFIL® 658 is shipped frozen in sealed metal pails or plastic tubes with dry ice or by refrigerated carrier.

Typical applications for CORFIL® 658 include filling of honeycomb core in sandwich structures, especially in co-bond or co-cure applications.

Features and Benefits

- Service temperature up to 250˚F (121˚C)
- Compatible with most 250˚F (121˚C) and 350˚F (177˚C) curing epoxy prepregs
- Good compressive strength
- Excellent spreadability and extrudability

CHARACTERISTICS

Table 1 | Physical Properties

Property	Value	Test Method
Volatiles, %	Less than 1	ASTM D 3530
Specific Gravity	0.70	ASTM D 792
Density, lb/ft^3 (g/cm^3)	40 – 47 (0.64 – 0.75)	ASTM D 792
Service Temperature, ˚F (˚C)	Dry: 250 (121) Wet: 176 (80)	
Shelf Life	6 months at or below 0˚F (-18˚C)	

Table 2 | Product Availability

Property	Description
Form	Thixotropic Paste
Color	White
Size	5 gal (19 L) pails 6 oz (177 mL) SEMCO tubes

PROPERTIES

Table 3 | CORFIL® 658 Mechanical Properties

Property	Test Condition	Value	Test Method
Extrusion Rate(1), lb/min (g/min)	75˚F (24˚C)	0.55 (250)	ASTM C 1338
Compression Strength(2), psi (MPa)	75˚F (24˚C)	6500 (45)	ASTM D 695
Minimum Pencil Hardness	75˚F (24˚C)	7H	ASTM D 3363

(1) 1/8 in (3 mm) nozzle; 65 psi (0.45 MPa); based on extrusion of 20 grams
(2) Cured 0.5 inch diameter x 1.0 inch height (1.27 cm x 2.54 cm) specimen; test speed of 0.05 ± 0.001 in/min (1.27 ± 0.0254 mm/min)
Cure Cycle: 90 minutes at 250˚F (121˚C) with 35 psi (0.24 MPa) pressure

PROCESSING

Recommended Cure Cycle

Cure Cycle Low Temperature	Apply 35 psi (0.24 MPa) of pressure Heat to 250˚F (121˚C) at 2˚F/min (1˚C/min) Hold at 250˚F (121˚C) for 90 minutes Cool under pressure to 140˚F (60˚C) at 5˚F/min (3˚C/min)
Cure Cycle High Temperature	Apply 35 psi (0.24 MPa) of pressure Heat to 350˚F (177˚C) at 2˚F/min (1˚C/min) Hold at 350˚F (177˚C) for 90 minutes Cool under pressure to 140˚F (60˚C) at 5˚F/min (3˚C/min)

HEALTH & SAFETY

Please refer to the product SDS for safe handling, personal protective equipment recommendations and disposal considerations.