

DESCRIPTION

TenCate TCF4035 is a syntactic film compatible with 121°C (250°F) epoxy prepregs. TCF4035 is part of TenCate's MicroPly™ line of syntactics and adhesives. It features a 30-day out time and is offered in a density of approximately ~0.6 g/cc (40 ± 4) pounds per cubic foot. It features a higher service temperature than TenCate TCF4025.

FEATURES

- › **Lightweight core fill**
- › **May be post cured for higher T_g**
- › **Good dielectric properties**

PRODUCT TYPE

Syntactic Epoxy Film

TYPICAL APPLICATIONS

- › Core fill or core close out
- › Excellent for radome structure

SHELF LIFE

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

Out life is the maximum time allowed at ambient temperature before cure. *Ambient is 18–22°C (65–72°F)

NEAT RESIN PROPERTIES

Resin Density	0.64 g/cc
T _g by DMA (E')	140°C (284°F)
Dielectric Constant	1.94 @ 10 GHz
Loss Tangent	0.0176 @ 10 GHz



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MECHANICAL PROPERTIES

Properties	Condition	Method	Results	
Tensile Strength - (Dogbone)	RTD	ASTM C297	21 MPa	3.10 ksi
Tensile Modulus	RTD	ASTM C297	2.8 GPa	0.40 Msi
Compression Strength 2.5 x 2.5 cm (1 x 1 inch) block	RTD	ASTM C695	73 MPa	10.6 ksi
Compression Strength	RTD	ASTM D6641	75 MPa	11.0 ksi
Compression Modulus	RTD	ASTM D6641	2.4 GPa	0.35 Msi
Short Beam Shear	RTD	ASTM D2344	4.8 GPa	0.7 ksi
3 pt Sandwich Flex Strength	RTD	ASTM D790	26 MPa	3.8 ksi
3 pt Sandwich Flex Modulus	RTD	ASTM D790	0.34 MPa	0.5 ksi

Provided in 30.5 cm x 61 cm (1 ft x 2 ft) sheets, nominal thickness 0.635, 1.27, or 2.54 mm (25, 50, or 100 mils).

CURE SCHEDULE

1. Pull vacuum (>20 in Hg) and heat 0.6–2.8°C (2–5°F)/minute to 87°C (190°F) under 1.35–1.53 bar (40–45 psi) autoclave pressure for 30–60 minutes.
2. Ramp 1–2.8°C (2–5°F)/minute to 129°C (265°F).
3. Hold for more than 2 hours.
4. Cool at less than 4°C (7°F) to less than 65°C (150°F).