

PRODUCT DATA SHEET

DESCRIPTION

Toray MicroPly™ SF-4 is a BMI syntactic film that provides excellent elevated temperature properties and compatible to Toray RS-8HT. Toray MicroPly™ SF-4 is available in unsupported or supported continuous film form in various thicknesses from 0.25–2.5 mm (10 mils– 100 mils). Toray MicroPly™ SF-4 has been evaluated and qualified in aerospace structures.

FEATURES

- ▶ Excellent ambient and elevated temperature properties processing
- ▶ Good handleability, drape, and processing
- ▶ Low dielectric and loss tangent over wide thermal and electrical range
- ▶ Good moisture resistance
- ▶ Good toughness
- ▶ Oven, autoclave, and compression consolidation
- ▶ Lightweight film core; 39 pcf, nom (0.62 g/cc)

PRODUCT TYPE

204°C (400°F) Cure BMI Syntactic Film

PRODUCT FORMS

- ▶ Film to 127 cm (50") wide

TYPICAL APPLICATIONS

- ▶ Aerospace structures
- ▶ Radomes

SHELF LIFE

Out Life:	14 days out life $\leq 21^{\circ}\text{C}$ (70°F) and $\leq 60\%$ RH
Frozen Storage Life:	6 months at $\leq -18^{\circ}\text{C}$ ($\leq 0^{\circ}\text{F}$)

Out life is the maximum time allowed at 21°C (70°F) or below and 60% or less RH before cure, after a single frozen storage cycle in the original unopened packaging at -18°C (0°F) or below for a period not exceeding the frozen storage life noted above.

TYPICAL NEAT RESIN PROPERTIES

Density	39 pcf, nom. (0.62 g/cc)
T _g (DMA); Dry/Wet	295°C (563°F)/305°C (581°F)

CURE PARAMETERS

- ▶ Apply vacuum. For autoclave or press applications, pressurize to 45–100 psi
- ▶ Heat to 204°C (+5/-0°C) at 3±2°C/min or 400°F (+10°F/-0°F) at 5°F ± 3°F/min
- ▶ Hold at 204°C (400°F) for 2 hours (+15 min/-0 min). Cool. Post cure at 250°C (482°F) for up to 6 hours (+30 min/-0 min)