

## PRODUCT DATA SHEET

### DESCRIPTION

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

<b>Out Life:</b>	14 days at 25°C (77°F)
<b>Frozen Storage Life:</b>	6 months at -18°C (< 0°F)

Out life is the maximum time allowed at room temperature before cure.

### TYPICAL NEAT RESIN PROPERTIES

Density	39 pcf, nom. (0.62 g/cc)
T <sub>g</sub> (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)

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