

PRODUCT DATA SHEET



TENCATE ADVANCED COMPOSITES

RS-15H

PRODUCT TYPE

Epoxy Film Adhesive

TYPICAL APPLICATIONS

- Marine Structures
- Dielectric Structures
- Aerospace Structures

SHELF LIFE

Out Life

Up to 30 days out life at 77°F (25°C)

Frozen Storage Life

6 months storage life at <0°F (-18°C)

Out Life is the time during which the material retains enough tack, drape and handling for easy component lay-up.

Revised 1/2017

All data given is based on representative samples of the materials in question. Since the method and circumstances under which these materials are processed and tested are key to their performance, and TenCate Advanced Composites has no assurance of how its customers will use the material, the corporation cannot guarantee these properties.

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PRODUCT DESCRIPTION

RS-15H is an epoxy film adhesive developed to provide maximum compatibility and adhesive performance for core/face skin structures, co-curing, and secondary bonding. RS-15H is highly flexible with respect to processing and is compatible with all types of reinforcements and cores. RS-15H has been evaluated and qualified in areas ranging from marine to aerospace and dielectric structures. RS-15H may also be cured at temperatures as low as 176°F/80°C, and is compatible with the RS-1 family of prepreps.

PRODUCT BENEFITS/FEATURES

- Flexible, robust range of process cycles
- Excellent balance of mechanical performance and toughness
- Vacuum bag, autoclave, and press consolidation
- Low outgassing
- Excellent adhesive for sandwich structures
- Low shrinkage during cure
- Light weight and reticulating films
- Compatible with spectra fiber for low dielectric constant/loss applications

TYPICAL NEAT RESIN PROPERTIES

Dielectric Constant3.0 (at 10 GHz per ASTM D2520 Method A)

Loss Tangent0.021 (at 10 GHz per ASTM D2520 Method A)

TYPICAL CURE PARAMETERS

- Apply vacuum (If aerospace applications require autoclave or press cure, pressurize to 45-100 psi.) 3.1-6.9 bar
- Heat to 150°F/65°C @ 4°F/2°C minute
- Hold at 150°F/65°C for a minimum of 30 minutes (Some applications may not require the 150°F/65°C dwell. Please contact TenCate for technical assistance.)
- Heat to 200°F/93°C @ 4°F/2°C minute
- Hold at 200°F/93°C for 6 hours
- Cool under vacuum

PRODUCT FORMS

- Supported and unsupported adhesive film to 50 inches wide

RS-15H FILM ADHESIVE PHYSICAL PROPERTIES

Property	Value
Density	1.24 g/cm ³

RS-15H FILM ADHESIVE MECHANICAL PROPERTIES

Property	Test Method	Sample Configuration	Failure Mode	Results	
Lap Shear	ASTM D1002	Composite-Composite	Adhesive	3020 psi	21 MPa
Cleavage Test	ASTM D1062	Composite/Balsa	Core	1400 psi	9.7 MPa
Cleavage Test	ASTM D1062	Composite/Al HC	Partial Core	1455 psi	10.0 MPa
Flatwise Tensile	ASTM C297	H-80 Foam Core	Core	360 psi	2.5 MPa
Flatwise Tensile	ASTM C297	H-200 Foam Core	Core	520 psi	3.6 MPa
Flatwise Tensile	ASTM C297	P-500 Foam Core	Core	250 psi	1.7 MPa
Flatwise Tensile	ASTM C297	B-5 Foam Core	Core	390 psi*	2.7 MPa

All values above are at room temperature, dry. * Aramid skins, co-cured.

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