

TECHNICAL DATASHEET

MILLIFOAM RHC51HF

MILLIFOAM® RHC51HF is a closed-cell rigid foam based on polymethacrylimide (PMI) chemistry and contains no CFC's. With its extremely low dielectric constant and favorable transmission properties in the high frequency region, it is ideal for the use in antenna systems. Applications range from miniature antennas in cell phones to large fixed ship-based and stationary antenna structures, radomes and mammography plates.

Polymer	PMI	Sheet Size	2500 x 625 mm
Thickness range	0.5-2.5 mm	Supplier	Evonik GmbH

Featuring an extremely fine cell structure, the foam ensures minimal resin uptake and good compatibility with metallic facing materials. MILLIFOAM® RHC51HF is suitable for hand lay-up, pre-preg processing and vacuum infusion at temperatures up to 130°C (266°F) and pressures up to 0.3 MPa (44 psi). The foam can be easily thermoformed or CNC machined to meet customized application requirements.

Properties

Density	52 kg/m ³
Compressive Strength	0.9 MPa
Tensile Strength	1.9 MPa
Tensile Modulus	70 MPa
Shear Strength	0.8 MPa
Shear Modulus	19 MPa
Coefficient of Thermal Expansion	3.34 1/K*10E-5
Dielectric Constant @10GHz	1.067
Loss Tangent @10GHz	0.0041
Thermoforming Temperature	195°C (383°F)
Drying Conditions	4 hrs @ 130°C ± 5°C (266°F ± 9°F)

Disclaimer

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