

HTC Series Product Information

"Structural Syntactic Foams for Dielectric Applications" High Performance Foams for Auto, Marine & Aerospace Use





SYNFOAM ADVANTAGES

- Tailored Dielectric Constant
- Very Low Loss Tangent
- High Tg (180°C)
- Liquid Castable System
- Low Water Absorption
- High Impact Resistance
- Tailored Acoustic Impedance



SYNFOAM HTC designed for Resin Transfer Molding or Castin, High Strength Composite Radomes for Marine and Aerospace

Product No.	Foam Density (lbs/ft ³)	Compressive Strength (PSI)	Dielectric Constant @ 1 GHz	Loss Tangent @ 1 GHz	Dielectric Constant @ 10GHz	Loss Tangent @ 10 GHz
HTC-38	38 ± 2	9000	1.85	0.002	1.72	0.006
HTC-45	45 ± 2	15000	2.15	0.003	1.98	0.008
HTC-48	48 ± 2	18000	2.59	0.005	2.32	0.009
HTC-55	55 ± 2	19000	4.50	0.015	4.38	0.019

SYNFOAM HTC provides a unique combination of structural properties combining a strong lightweight polymer matrix and low density hollow microsphere reinforcement enabling excellent performance in Radome, Sonar, Automotive radar and high power device applications.

Syntactic foams provide a very stable composite with low dielectric constant and very low loss tangent electrical properties. SYNFOAM is resistant to hydrocarbons fuels and chemicals and has very low water absorption. It has very good temperature resistance to 180°C.

SYNFOAM HTC is castable and has a suitable viscosity for RTM and meter mix dispense equipment. The material has low shrinkage and high adhesion to inserts. The surface finish as cast can vary from high gloss to a matte depending on mold finish. Complex shapes can be fabricated reducing or eliminating machining

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SynFoam Division of UDC 112 Naylon Ave., Livingston, NJ 07039 Tel: 973-994-4334 Fax: 973-994-4335 Website: www.synfoam.com

Send inquiries to: info@synfoam.com