

Rigid High Temperature Plastic Foam Sheet Stock

RIGID PLASTIC FOAM SHEET STOCK

Eccostock SH is a rigid polyurethane foam, which remains rigid and withstands high temperatures, for a short time even up to 163°C (325°F). Unlike most polyurethanes, Eccostock SH has an extremely low dissipation factor and low dielectric constant. It is a closed cell foam, pink in color.



FEATURES AND BENEFITS

- Rigid
- High Temperature Resistance

MARKETS

- Commercial Telecom
- Security and Defense

SPECIFICATIONS

TYPICAL PROPERTIES	ECCOSTOCK SH		
	SH-2	SH-8	SH-14
Bulk Density, lbs/ft ³ (g/cc)	3 (0.05)	8 (0.13)	15 (0.24)
Temperature Range °C (°F)	-70 to 135 (-94 to 275)	-70 to 135 (-94 to 275)	-70 to 135 (-94 to 275)
Dielectric Constant (1 MHz)	1.04	1.12	1.25
Dielectric Strength, volts/mil	40	40	40
Dissipation Factor (1 MHz)	0.001	0.002	0.005
Compressive Strength, psi (kg/cm ²)	30 (2.1)	250 (17.6)	600 (42.3)
Flexural Strength at 5% strain, psi (kg/cm ²)	25 (1.8)	225 (15.8)	800 (56.0)
Flexural Modulus, psi (kg/cm ²)	500 (35.2)	7,000 (493)	20,000 (1408)
Tensile Strength, psi (kg/cm ²)	40 (2.8)	200 (14.1)	450 (31.7)
Shear Strength, psi (kg/cm ²)	35 (2.5)	140 (9.9)	300 (21.1)
Coefficient of Thermal Expansion per °C	25 x 10 ⁻⁶	40 x 10 ⁻⁶	50 x 10 ⁻⁶
Water absorption, % gain in 24 hours	3	1.5	1

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

APPLICATIONS

- Eccostock SH is primarily used as a high-temperature structural member or thermal barrier in electrical/electronic applications.

AVAILABILITY

- Standard sheets are 30.5 x 61 cm (12" x 24") in thicknesses of 2.5 cm, 5 cm, 7.6 cm, 10 cm & 15 cm (1", 2", 3", 4" & 6").
- It is available in bulk densities of 3, 4, 6, 8, 10, 12, & 14 lbs/ft³ (0.03, 0.06, 0.10, 0.13, 0.16, 0.19 & 0.22 g/cc).
- Eccostock SH is available in other thicknesses, sizes, and customer specified shapes upon request.

INSTRUCTIONS FOR USE

- Eccostock SH at densities less than 3 lbs/ft³ (0.05 g/cc) may warp at temperatures above 93°C (200°F).
- Unicellularity: Not interconnected above 6 lbs/ft³ (0.10 g/cc). However, below this density there is a significant percentage of cells connected.
- Eccostock SH is easy to machine.