

Technical Data Sheet

Hushcloth Densified Embossed Foams



Hushcloth Densified Embossed (HC EM) acoustical foams are manufactured by compression under high heat to form an attractive textured pattern. This increases the surface area, density and stiffness of the foam for maximum sound absorption. By densifying the surface a thin skin is formed to give greater abrasion and air velocity resistance. A decorative urethane facing can be applied (Type Deco-Foam CF) for enhanced appearance and durability, and to make the foam impervious to most liquids

Hushcloth Embossed Foams are typically used in business equipment, appliances, HVAC units and vehicle headliners.

HC EM Foams can be purchased in rolls or sheets, and can be die cut, or fabricated to customer specifications. They are easily cut with a knife, saw or scissors. The addition of pressure sensitive adhesive provides a convenient method of fastening to most substrates.

Polyurethane Foam - Physical Properties

Property	Polyester Foam	Polyether Foam
Color	Charcoal Grey	
Density	2lb/ft ³ (32 kg/m ³) ±10% or 4 lb/ft ³ (64 kg/m ³) ±10% per ASTM D3574-86 test A	
Tear Strength	1.5 ppi (2.6 N/cm) per ASTM D3574-86 test F	1.58 ppi (2.8 N/m) per ASTM D3574-86 test F
Tensile Strength	20 psi (135 kPa) per ASTM D3574-86 test E	13 psi (90 kPa) per ASTM D3574-86 test E
Elongation	120% per ASTM D3574-86 test E	193% per ASTM D3574-86 test E
Compression Set (50% Deflection)	Max 10% ASTM D3574-86 test D	
Heat Resistance	Retention of tensile strength after 22 hours dry heat aging at 140°C min. 70% ASTM D3574-86 test K	
Humidity Resistance	Retention of tensile strength after 6 hours, steam autoclave at 105°C min. 70% ASTM D3574-86 test J	
Chemical Resistance	Good for common fluids, water, petroleum, solvents, and alkalis. Swelling will occur, will return to almost 100% after drying	
Flammability	MVSS 302, UL-94 HF1, and FAR 25.853(b)	
Service Temperature	-40°F (-40°C) to +225°F (107°C) continuous to 275°F(135°C) intermittent	
Thermal Conductivity	BTU-in/ft ² h°F 0.25 (36mW/m°K) per ASTM C 177	

HC EM Foams can be made in combination with **Whispermat™** barrier systems when both absorption and transmission loss is needed (see Whispermat brochure), or **VE™** damping systems, when enhanced vibration control is required. (see VE damping brochure).

Pressure Sensitive Adhesive

Supported SBR (temps to 60°C/140°F)
 Unsupported Acrylic (temps to 120°C/250°F)
 Supported Acrylic (temps to 120°C/250°F)

Standard Sizes

Rolls 54" x 50ft (1370mm x 15m)
 Sheets 54" x 72" or 36" or 24"(1370mm x 1800 or 900 or 600mm)
 Fabricated or Die Cut
 Thicknesses ¼" - 2"(6mm - 50mm)

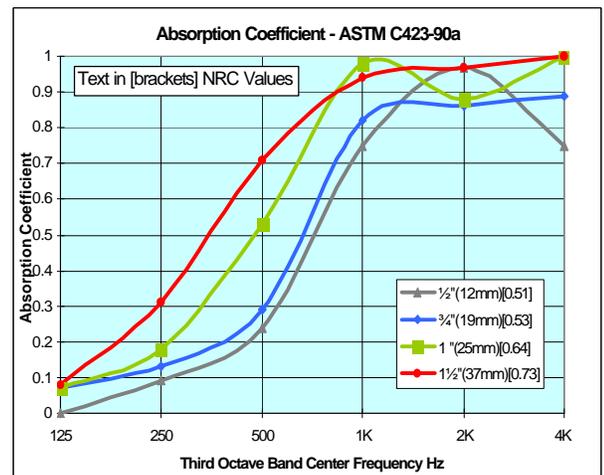


Figure 1 Absorption Performance for various thicknesses of HC EM Foams