

# TechLite® Insulation Specifications

TechLite is a low density, high temperature foam insulation which was developed as an alternative to conventional insulation to minimize the problems of toxicity, carcinogens, and airborne fibers. It is lightweight and has a service temperature range of -40°F to 350°F per ASTM C1410 (-150°F to 400°F consult factory). The polymeric foam contains no toxic or carcinogenic materials, is highly fire resistant, has low smoke, produces low out gassing, and has outstanding thermal and acoustical properties.

**Table 1: Physical Properties**

Property	Test Standard	Requirement	
Insulation Material	ASTM C 1410-10	Flexible Open-Cell Melamine	
Service Temperature [°F]	ASTM C 1410-10	-40 to 350	
Density [lb/ft <sup>3</sup> ]	ASTM D 3574	0.56 ±0.06	
Thermal Conductivity [BTU·in/h·ft <sup>2</sup> ·°F]	ASTM C 177	at -40°F mean at 75°F mean at 300°F mean	0.19 0.25 0.45
Indentation Force deflection, min, [lb·50in <sup>2</sup> ]	ASTM D 3574	Compression at 25% Compression at 65%	80 160
Tensile Strength, min [lb/in <sup>2</sup> ]	ASTM D 3574	14	
Percent Elongation, max	ASTM D 3574	30	
Surface Burning Characteristics, max: Flame spread index smoke development at 1 in thickness	ASTM E 84	25/50	
Smoke Toxicity, max [ppm]	ASTM E 800 ASTM E 662	Carbon Monoxide Hydrogen Chloride Hydrogen Fluoride Nitrous Oxide Sulfur Dioxide Hydrogen Cyanide	3500 500 50 100 100 150
Wicking-Type Thermal Insulation for Use over Austenitic Stainless Steel [ppm]	ASTM C 871	95 (Pass)	
"Chemical Analysis of Thermal Insulation Materials for Leachable Chloride" [ppm]	ASTM C 871	Chloride Fluoride Silicates Sodium pH	95 2 140 3887 9
Oxygen Index, min [% Oxygen]	ASTM D 2863	33	

**Table 2: Classifications**

Property	Requirement
National Fire Protection Association NFPA No. 101 "Life Safety Code"	Class A
UL 94 V-0, HF-1	Passes
Uniform Building Code, 1988 Edition, Part VII "Fire Resistive Standard for Fire Protection", Sections 4201-4203	Class 1
Federal Motor Vehicle Safety Standard (FMVSS) No. 302 "Flammability of Interior Materials"	Rate of Burning: 0 in/min Self Extinguishing
Boeing Specification, BSS 7239, "Test Method for Toxic Gas Generation by Materials Combustion"	Meets and Exceeds
Airbus Industries Technical Specification, ATS-1000.001, "Fire-Smoke-Toxicity (FST) Test Specification"	Meets and Exceeds

**Table 3: Unfaced Sound-Absorption Coefficients Versus Frequency**

Frequency [Hz]	125	250	500	1000	2000	4000
Minimum coefficient at 2 in thickness	0.15	0.32	0.77	0.95	0.94	0.92

Specifications are subject to change without notice. All statements and technical information contained herein are based on tests we believe to be reliable. The accuracy or completeness is not guaranteed under all circumstances. All flammability ratings and specifications are based on laboratory tests and do not describe the performance of these materials in a real life situation. Before using Accessible Products Company products, the user shall determine suitability for the intended use and user assumes all responsibility for improper selection.

