



**TERMINAL UNITS  
LINER OPTIONS  
TYPE: FIBERGLASS DUAL DENSITY INSULATION**

**DESCRIPTION**

Tuf-Skin® dual-density fiberglass insulation is the most widely-used insulation for HVAC equipment applications. The combination of high-density skin and low-density core provides high acoustical values in the high and low frequency ranges normally encountered in HVAC equipment.

**Application.** Tuf-Skin® provides effective thermal and acoustical control in air conditioning and heating equipment.

**Advantage.** The porosity and inherent structure of the flame-attenuated glass fiber blankets are highly effective in reducing thermal transfer.

Tuf-Skin® readily withstands damage from mechanical abrasion during assembly and from air erosion in service.

**INSULATION CHARACTERISTICS**

Material: Dual density fiberglass, surface treated to prevent erosion (Tuf-Skin® II)  
 Available Thicknesses: 1/2" (13), 3/4" (19), 1" (25) (Consult individual model submittal for thickness used).  
 Density: 4.0 lb/cu.ft. (64 kg/m³) skin, 1.5 lb/cu.ft. (24 kg/m³) core  
 Thermal Conductance: 1/2" (13) - 0.52 BTU / hr-ft²-°F @ 75°F (2.95 W / m²-°C @ 24°C),  
 3/4" (19) - 0.36 BTU / hr-ft²-°F @ 75°F (2.04 W / m²-°C @ 24°C),  
 1" (25) - 0.26 BTU / hr-ft²-°F @ 75°F (1.47 W / m²-°C @ 24°C)  
 Thermal Resistance: 1/2" (13) - 1.9 hr-ft²-°F / BTU (0.34 m²-°C / W),  
 (Effective R-Value) 3/4" (19) - 2.8 hr-ft²-°F / BTU (0.49 m²-°C / W),  
 1" (25) - 3.8 hr-ft²-°F / BTU (0.68 m²-°C / W)  
 Flame Spread Index: 25  
 Smoke Developed Index: 50

**MAXIMUM AIR VELOCITY**

3,600 FPM (1,097 mpm). Tested at two and one-half times (9,000 fpm) (2,743 mpm) the maximum recommended service velocity. Meets the erosion requirements of UL 181.

**TEMPERATURE LIMIT**

250°F (121°C).

**STANDARD AND CODE COMPLIANCE**

- ASTM E84, UL 723 and CAN/ULC S102 Flame/Smoke (25/50)
- NFPA 90A and 90B
- ASTM C 1071

Tuf-Skin® is a registered trademark of Johns Manville.

<b>SCHEDULE TYPE:</b>	Dimensions are in inches (mm)			
<b>PROJECT:</b>				
<b>ENGINEER:</b>	<b>DATE</b>	<b>B SERIES</b>	<b>SUPERSEDES</b>	<b>DRAWING NO.</b>
<b>CONTRACTOR:</b>	5 - 12 - 22	VAV.ACC.	3 - 30 - 22	VAV-FDD