

DESCRIPTION

Tuf-Skin® dual-density fiberglass blankets are used for HVAC equipment applications. The combination of a high-density skin and low-density core provides high acoustical values in the high and low frequency ranges normally encountered in appliances and HVAC equipment.

Tuf-Skin® II is the cost-effective alternative to original Tuf-Skin for acoustical and thermal applications in HVAC equipment and appliances. With the same proven characteristics as Tuf-Skin, its dual-density construction enhances sound absorption at high and low frequencies

The porosity and inherent structure of the flame attenuated glass fiber blankets are highly effective in reducing thermal transfer. The inherent rigidity of these products eases installation. In addition to the thermal and acoustical properties, both insulations readily withstand damage from mechanical abrasion during assembly and from in-service air erosion.

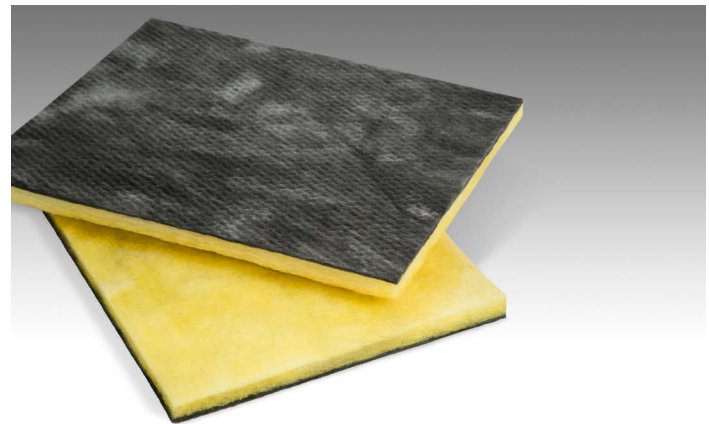
These products are easily cut to size or shape with a knife, steel rule die, or shears. They can be firmly bonded to metals, plastic, or other materials with commercial adhesives or mechanical fastening devices.

STANDARD THICKNESSES & ROLL LENGTHS

Description	Thicknesses		Roll Lengths	
	in	mm	ft	m
Tuf-Skin Skin: Black Core: Black/Amber	½	13	150	45.7
	¾	19	135	41.2
	1	25	100	30.5
	2	51	35	10.7
Tuf-Skin II Skin: Black Core: Amber	½	13	150	45.7
	¾	19	135	41.2
	1	25	100	30.5

CUSTOM FABRICATION

The Johns Manville nationwide network of Approved Fabricators specializes in secondary processing to supply custom parts to meet specific customer requirements. Die-cutting, laminating, special packaging and just-in-time delivery are just a few of the multiple capabilities our fabricators can provide.



SPECIFICATIONS

Temperature Limit	250°F (121°C)
Fire Hazard Classification ASTM E84, UL 723, and CAN/ ULC S102-M88, Meets NFPA 90A and 90B	25 Flame Spread 50 Smoke Developed
Maximum Air Velocity	3,600 fpm (18.3 m/sec). Tested at two and one-half times (9,000 fpm [45.7 m/sec])
ASTM C 1071	Conforms to the physical properties and requirements

APPLICATIONS

- Furnaces Residential & Commercial
- Air Conditioners
- Mixing Boxes

ADVANTAGES

- Excellent High and Low Frequency Acoustical Performance
- Good Thermal Performance
- Easy to Handle
- Easy to Install



TUF-SKIN® AND TUF-SKIN® II

HVAC EQUIPMENT LINERS

DATA SHEET

TUF-SKIN - THERMAL CONDUCTANCE (C)*

Thickness		75°F (24°C) Mean Temperature	
in	mm	Btu/(hr•ft²•°F)	W/m²•°C
½	13	0.48	2.72
¾	19	0.31	1.76
1	25	0.24	1.36
1½	38	0.17	0.96
2	51	0.13	0.74

TUF-SKIN II - THERMAL CONDUCTANCE (C)*

Thickness		75°F (24°C) Mean Temperature	
in	mm	Btu/(hr•ft²•°F)	W/m²•°C
½	13	0.52	2.95
¾	19	0.36	2.04
1	25	0.26	1.47
1½	38	0.18	1.02
2	51	0.13	0.74

TUF-SKIN – ACOUSTICAL PERFORMANCE

Type "A" Mounting, Sound Absorption Coefficients*

Thickness		Frequency (Hz)						
in.	mm	125	250	500	1000	2000	4000	NRC**
½	13	0.05	0.17	0.34	0.51	0.68	0.84	0.45
¾	19	0.02	0.22	0.43	0.48	0.70	0.77	0.50
1	25	0.10	0.32	0.64	0.84	0.98	1.01	0.70
1½	38	0.16	0.54	0.92	1.05	1.09	1.00	0.90
2	51	0.19	0.71	1.02	1.14	1.07	1.05	1.00

*Tested in accordance with ASTM C423, Type "A" mounting per ASTM E795.

**Noise reduction coefficient.

TUF-SKIN II – ACOUSTICAL PERFORMANCE

Type "A" Mounting, Sound Absorption Coefficients*

Thickness		Frequency (Hz)						
in.	mm	125	250	500	1000	2000	4000	NRC**
½	13	0.06	0.15	0.32	0.51	0.67	0.88	0.45
¾	19	0.06	0.22	0.47	0.68	0.85	0.97	0.55
1	25	0.10	0.32	0.60	0.83	0.94	1.00	0.65
1½	38	0.17	0.55	0.91	1.06	1.09	1.00	0.90
2	51	0.19	0.71	1.02	1.14	1.07	1.05	1.00

*Tested in accordance with ASTM C423, Type "A" mounting per ASTM E795.

**Noise reduction coefficient.



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INSULATION SYSTEMS OEM INSULATIONS

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PRODUCT & TECHNICAL INFORMATION

800-654-3103

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of Tuf-Skin and Tuf-Skin II listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www2.jm.com/terms-conditions or call (800) 654-3103.