**Acoustical Surfaces, Inc.**

**SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS**

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Acoustical Surfaces, Inc. We Identify and **S.T.O.P** Your Noise Problems · Sound · Transmission · Obscuring · Products Soundproofing, Acoustics, Noise & Vibration Control Specialists ™

*We Identify and* **S.T.O.P.** *Your Noise Problem*

# QUIET LINER™
## RECYCLED COTTON ACOUSTICAL LINER



- *Excellent Noise Absorption*
- *Class A Fire Rated*
- *Reduces Heat Loss/Gain*
- *No Formaldehyde*
- *Resists Microbial Growth*
- *Low Air Resistance*
- *No Itch or Skin Irritation*

**DESCRIPTION:** Quiet Natural Fiber Liner (Patent Pending) is a thermally bonded HVAC insulation that offers superior acoustic and thermal performance. Made from natural fibers, Quiet Liner contains no fiberglass and does not itch or cause skin irritation. The fibers used to manufacture Quiet Liner offer excellent sound absorption properties. The air stream surface of Quiet Liner is overlaid with a durable, fire-resistant black facing providing additional strength to the product. Both the insulation and the facing are treated with an EPA registered anti-microbial agent.

**USES:** Quiet Natural Fiber Liner is used primarily as an acoustical liner designed for HVAC sheet metal ducts to absorb unwanted noise from multiple sources. Quiet Liner also reduces heat gain or loss. Quiet Natural Fiber Liner contains no harmful irritants and is safe to handle and install.

### Acoustical Performance

Sound Absorption was tested in accordance with ASTM C 423 using a Type A mounting per ASTM E 795.

| PRODUCT | ABSORPTION COEFFICIENTS @ OCTAVE BAND FREQUENCIES (Hz) | | | | | | |
|---|---|---|---|---|---|---|---|

| Thickness Inch (mm) | 125 | 250 | 500 | 1000 | 2000 | 4000 | NRC |
|---|---|---|---|---|---|---|---|
| 1 (25) | .07 | .33 | .72 | .99 | .93 | .96 | .75 |

### Physical Properties

| PROPERTIES | PERFORMANCE | TEST METHOD |
|---|---|---|
| Operating Limits Temperature Velocity | Maximum 250° (121°C) 5000 fpm | ASTM C 411 ASTM C 1071* |
| Surface Burning Characteristics (Fire Hazard Classification) | Flame Spread Max: 25 Smoke Developed Max: 50 Class A / Class 1 | ASTM E 84 UL 723 NFPA 255 |
| Corrosion Resistance | Pass – Non Corrosive | ASTM C 739 |
| Fungi Resistance | Pass – No Growth | ASTM G 21 ASTM C 1338 ASTM C 739 |
| Bacteria Resistance | Pass – No Growth | ASTM G 22 |
| Water Vapor Absorption | Less Than 1% By Weight | ASTM C 1104 |

**\***While not passing It is our interpretation that ASTM C 1071, Section 12.7 does not apply as it refers to glass fiber.

### Standard Available Sizes

| THICKNESS | DENSITY | WIDTH | LENGHT | SQ. FT. ROLL |
|---|---|---|---|---|
| 1/2" | 3.0 | 48" | 100' | 400 |
| 1" | 1.5 | 48" | 50' | 200 |
| 2" | 1.5 | 48" | 25' | 100 |

### Custom Sizes

| THICKNESS | DENSITY | WIDTH | LENGHT |
|---|---|---|---|
| 1/2" | 3.0 | 35" - 60" | 100' |
| 1" | 1.5 | 35" - 60" | 50' |
| 2" | 1.5 | 35" - 60" | 25' |

### Product Compliances

Quiet Natural Fiber Liner has the physical properties that regularly meet the requirements of the following current specifications, standards, and codes.

**FIRE SAFETY STANDARDS**
NFPA 90A    Installation of Air Conditioning and Ventilating Systems
NFPA 90B    Installation of Warm Air Heating and Air Conditioning System

**BUILDING CODES**
ICBO     International Conference of Building Officials
BOCA    Building Officials and Code Administrators
CABO    Council of American Building Officials
SBCCI   Southern Building Code Congress International

### Thermal Performance

Tested in accordance with ASTM C 518

| PRODUCT | | K-VALUE | | C-VALUE | | R-VALUE | |
|---|---|---|---|---|---|---|---|
| Thickness* Inch | (mm) | Btu•in/(h•ft²•°F) | W/(m•°C) | Btu/(h•ft²•°F) | W/(m²•°C) | R | (m²•°C)/W |
| 1/2 | (13) | .25 | .036 | .50 | 2.84 | 2.0 | .35 |
| 1 | (25) | .25 | .036 | .25 | 1.42 | 4.2 | .74 |
| 1-1/2 | (38) | .25 | .036 | .17 | 0.97 | 6.0 | 1.06 |
| 2 | (51) | .25 | .036 | .13 | 0.74 | 8.0 | 1.41 |

- Thermal conductance (C) and resistance (R) values are derived from the material thermal conductivity (k) value.    • 1 Inch Liner actual manufactured thickness = 1.05 inch.

- Soundproofing Products • Sonex™ Ceiling & Wall Panels • Sound Control Curtains • Equipment Enclosures • Acoustical Baffles & Banners • Solid Wood & Veneer Acoustical Ceiling & Wall Systems • Professional Audio Acoustics • Vibration & Damping Control • Fire Retardant Acoustics • Hearing Protection • Moisture & Impact Resistant Products • Floor Impact Noise Reduction • Sound Absorbers • Noise Barriers • Fabric Wrapped Wall Panels • Acoustical Foam (Egg Crate) • Acoustical Sealants & Adhesives • Outdoor Noise Control • Assistive Listening Devices • OSHA, FDA, ADA Compliance • On-Site Acoustical Analysis • Acoustical Design & Consulting • Large Inventory • Fast Shipment • No Project too Large or Small • Major Credit Cards Accepted