INSUL-SHEET®
Closed Cell Flexible Elastomeric Foam Insulation
Thermal Performance for HVAC/R Applications

DESCRIPTION
INSUL-SHEET® is an NBR/PVC-based closed cell, flexible elastomeric foam insulation. It is environmentally-friendly as it is free of CFCs, HFCs, HCFCs, PBDEs, formaldehyde and fibers. An EPA-registered antimicrobial agent is incorporated into the product providing additional protection against mold, fungal and bacterial growth. It is UL GREENGUARD® Gold Certified for low VOC emissions. The product is made in K-FLEX USA’s ISO 9001:2008-certified manufacturing facility in North Carolina.

AVAILABILITY
INSUL-SHEET® is black in color and is available in flat sheet (3’ x 4’) or roll (4’ wide) form in thicknesses of 1/8” up to 2”. (The product is supplied skin-two-sides in 1/4” thickness and above).

APPLICATIONS
INSUL-SHEET® is recommended for applications with service temperatures ranging from -297°F (-182°C) to +220°F (+104°C). For full adhesion applications (i.e. ductwork), the upper temperature limit is +200°F (+93°C). For applications below -40°F (-40°C), contact K-FLEX technical support. The product is used as comprehensive installation guides.

OUTDOOR APPLICATIONS
INSUL-SHEET® is made from a UV-resistant elastomeric blend. For severe UV exposure (rooftop applications) or for optimum performance, K-FLEX® 374 Protective Coating, approved jacketing or K-FLEX Clad® is required. It can be used with heat tracing tapes. It also retards heat loss from medium hot surfaces.

RESISTANCE TO MOISTURE VAPOUR FLOW
The expanded closed cell structure and unique formulation inherently resists moisture vapor intrusion and is considered a Class 1 vapor retarder per ASHRAE. For most indoor applications, INSUL-SHEET® needs no additional protection. Additional vapor barrier protection may be necessary when installed on cold surfaces that are exposed to continuous high humidity.

FLAME AND SMOKE RATING
INSUL-SHEET® in thicknesses of 2” (50 mm) and below has a flame spread rating of 25 or less and a smoke development rating of 50 or less as tested to ASTM E84, “Surface Burning Characteristics of Building Materials”. It is acceptable for duct/plenum applications, meeting the requirements of NFPA 90A/B.

Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for use in the selection of products to meet limits specified when compared to a known standard.

SPECIFICATION COMPLIANCE

- ASTM C534 Type 2, Grade 1
- ASTM D1056-00-2B1
- ASTM C534 Type 2, Grade 1
- ASTM E84 25/50-rated (to 2”) – tested to UL 723, NFPA 255 and CAN/ULC S102-03
- FMVSS 301
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- MIL-P-15280, Form S
- R-8 (2”) meets ICC requirements for Outdoor Ductwork
- UL GREENGUARD® Gold Certified
- Meets energy code requirements of ASHRAE 90.1 and 189.1

Fittings (elbows, tees, p-traps) and special parts (flanges, valves, etc.) can be field-fabricated from insulation sheets. ASTM C1710, Installation Guide for Flexible Closed Cell Foams, and the K-FLEX Installation Manual should be used as comprehensive installation guides.

K-FLEX USA
INNOVATION IN INSULATION
Made in USA
Contains a Protective Antimicrobial Agent
UL Made in USA
### SOUND ABSORPTION COEFFICIENTS AT FREQUENCY (Hz) (ASTM C423)

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<th>THICKNESS</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>NRC</th>
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<tr>
<td>1/2&quot; (12mm)</td>
<td>0.03</td>
<td>0.02</td>
<td>0.06</td>
<td>0.10</td>
<td>0.22</td>
<td>0.27</td>
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<tr>
<td>1&quot; (25mm)</td>
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<td>0.07</td>
<td>0.13</td>
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<td>-0.05</td>
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<tr>
<td>1-1/2&quot; (38mm)</td>
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<td>0.81</td>
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<td>0.31</td>
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<tr>
<td>2&quot; (50mm)</td>
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### “R” VALUES (ALL SIZES ARE NOMINAL)

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