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### Micro-Lok® HP

Jacketed High-Performance Fiberglass Pipe Insulation



Micro-Lok® HP is a pre-formed fiberglass pipe insulation with a factory-applied, vapor-retarder ASJ jacket with a self-seal lap. It is manufactured using an in-line manufacturing process, creating a highly consistent fiberglass core for reliable, optimized performance during both installation and operation. Micro-Lok HP can be used to insulate hot or cold pipe systems in concealed or exposed applications for commercial, power, or process lines. If used outdoors, it should be covered with a weather-protective jacketing. It is also UL Listed & Labeled over plastic pipes for air plenum applications when used at 1.0" thickness or greater

Operating Temperature Limit: 0°F to 850°F (-18°C to 454°C)

#### THERMAL CONDUCTIVITY ("K")

75 100 200 300 400 500 Mean Temperature °C 24 38 93 149 204 260 Btu•in/(hr•ft2•°F) 0.23 0.24 0.28 0.34 0.44 0.55 W/m•°C 0.034 0.035 0.040 0.049 0.063 0.079

#### **AVAILABILITY**

#### 3-Foot (0.92 m) Sections

Iron Pipe Size:  $\frac{1}{2}$ " - 24" (13 mm - 610 mm)\* Copper Tubing:  $\frac{5}{8}$ " - 6 $\frac{1}{8}$ " (16 mm - 156 mm)

#### Available in thicknesses of:

1/2" - 5" (13 mm - 127 mm)\* in 1/2" (13 mm) increments.

\*Check for availability with your Account Specialist

#### **SPECIFICATION** COMPLIANCE

ASTM C547, Type I ASTM C585

ASTM C1136 (Jacketing)

MIL-PRF-22344

MIL-DTL-24244

NRC1.36; ASTM C795

ASTM E84, FHC 25/50, **CAN/ULC S102.2** 







Recycled Content: Refer to JM.com

### Micro-Lok® HP Ultra

High-Performance Fiberglass Pipe Insulation with a Poly-Coated ASJ Jacket



Micro-Lok® HP Ultra is a pre-formed fiberglass pipe insulation with a factory-applied, polyurethane-coated ASJ jacket with a self-seal lap. The jacket is designed to be able to withstand intermittent, temporary exposure to transient moisture, and it may be wiped clean with a damp cloth should it become dirty. Micro-Lok HP Ultra is manufactured using an in-line manufacturing process, creating a highly consistent fiberglass core for reliable, optimized performance during both installation and operation. The insulation may be used to insulate hot or cold pipe systems in concealed or exposed applications for commercial, power, or process lines. If used outdoors, it should be covered with a weather-protective jacketing. It is also UL Listed & Labeled over plastic pipes for air plenum applications when used at 1.0" thickness or greater.

Operating Temperature Limits: 0°F to 850°F (-18°C to 454°C)

#### THERMAL CONDUCTIVITY ("K")

75 100 200 300 400 500 Mean Temperature °C 24 38 93 149 204 260 0.55 Btu•in/(hr•ft2•°F) 0.23 0.24 0.28 0.34 0.44 W/m•°C 0.034 0.035 0.040 0.049 0.063 0.079

#### **AVAILABILITY**

#### 3-Foot (0.92 m) Sections

Iron Pipe Size:  $\frac{1}{2}$ " - 24" (13 mm - 610 mm)\* Copper Tubing:  $\frac{5}{8}$ " - 6 $\frac{1}{8}$ " (16 mm - 156 mm)

#### Available in thicknesses of:

½" - 5" (13 mm - 127 mm)\* in 1/2" (13 mm) increments.

#### **SPECIFICATION COMPLIANCE**

ASTM C547, Type I ASTM C1136 (Jacketing) ASTM C585 MIL-PRF-22344 MIL-DTL-24244 NRC1.36; ASTM C795 ASTM E84, FHC 25/50, CAN/ULC S102.2







Recycled Content: Refer to JM.com

### Micro-Lok® HP Plain

Unjacketed High-Performance Fiberglass Pipe Insulation



Micro-Lok® HP Plain is a pre-formed fiberglass pipe insulation manufactured using a state-of-the-art, in-line manufacturing process, creating a highly consistent fiberglass core for reliable, optimized performance during both installation and operation. The insulation may be used on hot or cold pipe systems in concealed or exposed applications for commercial, power, or process lines. When used on cold or outdoor applications, it must be sealed with a vapor-retarder jacket and/or weather-protective jacketing.

#### Operating Temperature Limits: 0°F to 850°F (-18°C to 454°C)

#### THERMAL CONDUCTIVITY ("K")

400 500 Temperature °C 24 38 93 149 204 260 Btu•in/(hr•ft2•°F) 0.23 0.24 0.28 0.34 0.44 0.55 W/m•°C 0.034 0.035 0.040 0.049 0.063 0.079

#### AVAILABILITY

#### 3-Foot (0.92 m) Sections

Iron Pipe Size: 1/2" - 24" (13 mm - 610 mm)\* Copper Tubing: 5/8" - 61/8" (16 mm - 156 mm)

#### Available in thicknesses of:

1/2" - 5" (13 mm - 127 mm)\* in 1/2" (13 mm) increments.

\*Check for availability with your Account Specialist.

### **SPECIFICATION COMPLIANCE**

ASTM C547, Type I ASTM C585

MIL-PRF-22344

MIL-DTL-24244

NRC1.36; ASTM C795

ASTM E84, FHC 25/50, CAN/ULC S102.2

MIL-DTL-32585, Type I

Coast Guard/IMO Approved 164.109/79/0





<sup>\*</sup>Check for availability with your Account Specialist.

#### **TRYMER 25-50 PIR**

Polyisocyanurate Foam Insulation



Trymer® 25-50 insulation is a polyurethane modified polyisocyanurate (PIR) cellular plastic. The rigid insulation is supplied in the form of bunstock for fabrication into sheets, pipe shells, tank, and vessel coverings, and other shapes for a variety of thermal insulation applications. Trymer 25-50 meets the most stringent flame spread and smoke developed rating requirements in most building codes, making it ideal for insulating chilled water piping in commercial buildings. Trymer 25-50 insulation features improved dimensional stability over a wider range of temperatures than standard polyurethane insulation. Trymer insulation is not a known nutrient source for mold and mildew.

Operating Temperature Limits: -297°F to 300 °F (-183°C to 149°C)

#### THERMAL CONDUCTIVITY ("K")

 Mean
 °F
 -200
 -150
 -100
 -100
 0
 0
 50
 75
 150
 200

 Temperature
 °C
 -129
 -101
 -73
 -46
 -17
 10
 24
 66
 93

 (Btu-in/h-ft 2 - °F)
 0.13
 0.15
 0.17
 0.19
 0.19
 0.18
 0.19
 0.23
 0.26

 (W/m-K)
 0.019
 0.022
 0.025
 0.027
 0.027
 0.026
 0.027
 0.033
 0.037

#### INSTALLATION

Trymer 25-50 insulation is specifically formulated for easy fabrication into many shapes, such as pipe coverings, valve and fitting covers, and others to meet specific design needs. Because of the critical technical design aspects in many applications, JM reccomends contacting qualified designers to specify the total system.

#### **AVAILABILITY**

Height: 24" (41 cm) Width: 48" (122 cm) Length: 36" (91 cm)

Custom lengths are also available. Check for availability with your account specialist.

All pipe, valve, and fitting cover sizes available through fabrication to standard ASTM C585 requirements.

For further physical properties of Trymer 25-50 please refer to JM.com

# SPECIFICATION COMPLIANCE

ASTM C591, Grade 2, Type IV ASTM E84, FHC 25/50: up to 1.5" thickness

### **BOARD & BLANKET INSULATION**

# 800 Series Spin-Glas®

Fiberglass Duct and Equipment Insulation



800 Series Spin-Glas® is a fiberglass equipment and external duct insulation offered in a variety of different densities. The board is available plain or with a vapor-retarder FSK, AP, or Ultra (poly-top) facing. The insulation can be readily cut with a knife and secured in place with mechanical fasteners and/or adhesives.

#### Operating Temperature Limit:

Unfaced: 450°F (232°C)

Faced: unfaced side 450°F (232°C); faced side 150°F (66°C)

Matching Ultra Tape Available

# THERMAL CONDUCTIVITY ("K") AT 75°F (ASTM C177 AND C518)

| Type | in     | mm     | Btu•in/(hr•ft2•°F) | W/m•°C |
|------|--------|--------|--------------------|--------|
| 812  | 1½-4   | 38-102 | 0.24               | 0.035  |
| 813  | 1½-4   | 38-102 | 0.23               | 0.033  |
| 814  | 1-4    | 25-102 | 0.23               | 0.033  |
| 815  | 1-21/2 | 25-64  | 0.22               | 0.032  |
| 817  | 1–2    | 25-51  | 0.22               | 0.032  |

### **SOUND-ABSORPTION COEFFICIENTS**

ASTM C423 - Type "A" Mounting

| Type | in  | mm | 125  | 250  | 500  | 1000 | 2000 | 4000 | NRC  |
|------|-----|----|------|------|------|------|------|------|------|
| 812  | 1.0 | 25 | 0.07 | 0.24 | 0.63 | 0.87 | 1.00 | 1.02 | 0.70 |
|      | 2.0 | 51 | 0.24 | 0.68 | 1.10 | 1.13 | 1.10 | 1.07 | 1.00 |
| 813  | 1.0 | 25 | 0.08 | 0.27 | 0.69 | 0.95 | 1.05 | 1.02 | 0.75 |
|      | 2.0 | 51 | 0.19 | 0.88 | 1.15 | 1.14 | 1.10 | 1.07 | 1.05 |
| 814  | 1.0 | 25 | 0.06 | 0.29 | 0.75 | 0.99 | 1.04 | 1.02 | 0.75 |
|      | 2.0 | 51 | 0.24 | 1.00 | 1.11 | 1.08 | 1.06 | 1.05 | 1.05 |
| 815  | 1.0 | 25 | 0.03 | 0.32 | 0.80 | 1.04 | 1.05 | 1.05 | 0.80 |
|      | 2.0 | 51 | 0.27 | 0.91 | 1.11 | 1.09 | 1.09 | 1.09 | 1.05 |
| 817  | 1.0 | 25 | 0.10 | 0.35 | 0.85 | 1.04 | 1.05 | 1.03 | 0.80 |
|      | 2.0 | 51 | 0.38 | 0.93 | 1.10 | 1.07 | 1.07 | 1.07 | 1.05 |

# AVAILABLE DENSITIES, THICKNESSES AND FACINGS

|      |      |       | Thickness (in ½" [13mm] increments) |                  |        |        |  |  |
|------|------|-------|-------------------------------------|------------------|--------|--------|--|--|
| Туре | Der  | nsity |                                     | ced<br>.P/Ultra) | Plain  |        |  |  |
|      | pcf  | kg/m³ | in                                  | mm               | in     | mm     |  |  |
| 812* | 1.50 | 24    | -                                   | -                | 1½-4   | 38–102 |  |  |
| 813  | 2.25 | 36    | 1–4                                 | 25–102           | 1–4    | 25–102 |  |  |
| 814  | 3.00 | 48    | 1–4                                 | 25–102           | 1–4    | 25–102 |  |  |
| 815  | 4.25 | 68    | 1-21/2                              | 25–64            | 1-21/2 | 25–64  |  |  |
| 817  | 6.00 | 96    | 1-2                                 | 25-51            | 1-2    | 25-51  |  |  |

Standard Sheet Size:  $24'' \times 48''$  (610 mm x 1219 mm). Non standard sizes available upon request.

# SPECIFICATION COMPLIANCE

ASTM C612, Type 1A and 1B

• (813, 814, 815, 817) ASTM C533, Type III

(812 plain material only)
ASTM C1136 (Facing)

• Type I – AP Facing

• Type II – AP, FSK, and Ultra facing ASTM E84, FHC 25/50; UL 723;

NFPA 255 NFPA 90A and 90B

NRC 1.36; ASTM C795 MIL-DTL-24244

Canada: CAN/CGSB-51.10-92 and CAN/ULC S102



\*AP and FSK Facings Only

Recycled Content: Refer to JM.com

<sup>\*</sup>Available from Defiance, OH, only.

# **1000 Series Spin-Glas®**Fiberglass Equipment Board Insulation



1000 Series Spin-Glas® is a 3 pcf, semi-rigid fiberglass board insulation designed for industrial applications. The controlled manufacturing process and unique binder result in improved mechanical properties and higher application temperatures. Typical applications include furnaces, boilers, heated vessels, ducts, tanks, and other heating equipment.

Operating Temperature Limit: 850°F (454°C)

#### THERMAL CONDUCTIVITY ("K")

| Mean               | °F | 75    | 300   |
|--------------------|----|-------|-------|
| Temperature        | °C | 24    | 149   |
| Btu•in/(hr•ft²•°F) |    | 0.23  | 0.33  |
| W/m•°C             |    | 0.033 | 0.048 |

### SOUND-ABSORPTION COEFFICIENTS

ASTM C423 - Type "A" Mounting

| in  | mm  | 125  | 250  | 500  | 1000 | 2000 | 4000 | NRC  |
|-----|-----|------|------|------|------|------|------|------|
| 1.0 | 25  | 0.05 | 0.31 | 0.67 | 0.96 | 1.04 | 1.03 | 0.75 |
| 2.0 | 51  | 0.24 | 1.05 | 1.16 | 1.12 | 1.08 | 1.07 | 1.10 |
| 3.0 | 76  | 0.58 | 1.21 | 1.11 | 1.08 | 1.07 | 1.08 | 1.10 |
| 4.0 | 102 | 0.92 | 1.15 | 1.09 | 1.07 | 1.07 | 1.09 | 1.10 |

#### **AVAILABILITY**

**Thickness** 1-4 (½" inc.) 25-102 (13 mm inc.)

Standard sizes available are 24"x 48", 24"x 96" and 48"X96" (0.61m x 1.22m, 0.61m x 2.44m and 1.22m x 2.44m). Other sizes are available for special order.

#### **SPECIFICATION COMPLIANCE**

ASTM C612, Type II ASTM E84, FHC 25/50 ASTM E136 and ISO 1182 (noncombustible) NRC 1.36; ASTM C795 CAN/CGSB-51.10-92 MIL-DTL-32585

Recycled Content: Refer to JM.com

# Precipitator Spin-Glas® Fiberglass Board Insulation



Precipitator Spin-Glas® is a semi-rigid, lightweight industrial equipment fiberglass insulation specifically designed to insulate precipitators, baghouses, scrubbers, ducts, and breechings in power-generation plants. It can also be used to insulate boilers, heaters, ovens, and other industrial equipment. Precipitator Spin-Glas is available in a variety of standard and custom sizes and is an excellent choice for applications that do not require higher density insulation.

Operating Temperature Limit: 850°F (454°C)

#### THERMAL CONDUCTIVITY ("K")

| Mean               | °F | 75    | 300   |
|--------------------|----|-------|-------|
| Temperature        | °C | 24    | 149   |
| Btu•in/(hr•ft²•°F) |    | 0.23  | 0.34  |
| W/m•°C             |    | 0.034 | 0.049 |

#### SOUND-ABSORPTION COEFFICIENTS ASTM C423 - Type "A" Mounting

| in  | mm  | 125  | 250  | 500  | 1000 | 2000 | 4000 | NRC  |
|-----|-----|------|------|------|------|------|------|------|
| 1.0 | 25  | 80.0 | 0.32 | 0.68 | 0.95 | 1.06 | 1.04 | 0.75 |
| 2.0 | 51  | 0.20 | 0.85 | 1.11 | 1.11 | 1.07 | 1.07 | 1.05 |
| 3.0 | 76  | 0.52 | 1.23 | 1.16 | 1.09 | 1.07 | 1.10 | 1.15 |
| 4.0 | 102 | 0.80 | 1.23 | 1.10 | 1.09 | 1.08 | 1.08 | 1.10 |

#### **AVAILABILITY**

mm Thickness 1-4 (½" inc.) 25-102 (13 mm inc.)

Standard sizes available are 24"x 48" and 48"x 96" (0.61m x 1.22m and 1.22m x 2.44m). Other sizes are available for special order.

### **SPECIFICATION** COMPLIANCE

ASTM C612, Type II NRC 1.36; ASTM C795 MIL-DTL-24244 ASTM E84, FHC 25/50 CAN/CGSB-51.10-92

Recycled Content: Refer to JM.com

# **XSPECT® ISOfoam APF Board**

Flat and Tapered Polyiso Foam Board Insulation



XSPECT® ISOfoam APF Board is a polyisocyanurate foam board designed to insulate rooftop ducts and HVAC equipment. The closed-cell foam core is bonded to a foil facer on both sides. It is a highly versatile insulation that can be used in a variety of mechanical and OEM applications, including rooftop ducts, appliances, HVAC equipment, refrigerated transportation, storage vessels, and railcars. XSPECT ISOfoam APF board offers one of the highest R-values of any rigid insulation available, making it ideal for both hot and cold applications.

Johns Manville offers a flat and tapered (or sloped) XSPECT board for insulating rooftop ducts. Utilizing tapered boards as the top piece of a rooftop duct insulation system helps to prevent ponding water and assists in precipitation drainage away from a rooftop duct.

#### **AVAILABILITY & THERMAL PERFORMANCE – FLAT BOARDS Board Size 4x8 ft**

| Thickness<br>(inches)<br>1.00 | <b>R-Value U.S.</b> <sup>1</sup><br>(°F • ft² • hr/BTU)<br>6.0 | Thickness<br>(mm)<br>25 | <b>RSI-Value</b><br>(°K • m²/W)<br>1.06 |
|-------------------------------|--|-------------------------|---|
| 1.50                          | 9.3  | 38                      | 1.63                                    |
| 2.00                          | 13   | 51                      | 2.21                                    |
| 2.50*                         | 16   | 64                      | 2.79                                    |
| 3.00                          | 19   | 76                      | 3.36                                    |
| 3.50*                         | 22   | 89                      | 3.94                                    |
| 4.00*                         | 26   | 102                     | 4.52                                    |

<sup>1</sup> Aged R-value at 75°F in accordance with ASTM C1289

### **SPECIFICATION** COMPLIANCE

**ASTM C1289** 

 Class 1, Type 1 CAN/ULC S704

Class 1, Type 1

ASTM E84 & CAN/ULC S102 25/450

#### **AVAILABILITY & THERMAL PERFORMANCE – TAPERED BOARDS Board Size 4x8 ft**

| Slope (in.) | Dimension (in.) |       | R-Value <sup>2</sup> | LTTR Value | Pieces per |  |
|-------------|-----------------|-------|----------------------|------------|------------|--|
| •           | Thin            | Thick | Nominal              | Nominal    | Unit       |  |
| 1/4         | 1               | 2     | 9.3                  | 8.6        | 32         |  |
| 1/4         | 2               | 3     | 16.0                 | 14.4       | 18         |  |
| 1/4         | 3               | 4     | 22.0                 | 20.5       | 12         |  |

<sup>&</sup>lt;sup>2</sup> Nominal R-value of the entire board.

The table above represents the maximum slope possible. For any made-to-order requests on slope requirements or board size contact your local JM sales representative.

### Micro-Flex®

Large-Diameter Fiberglass Pipe and Tank Wrap



Micro-Flex® is a fiberglass wrap insulation for large diameter pipes and tanks. It is an alternative to pre-formed insulation. The fiber orientation of Micro-Flex enhances both the compressive strength and thermal performance when compared to conventional pipe and tank insulation. Micro-Flex rolls can be cut to size on-the-job and are available with an FSK, AP vapor retarder facing, or Ultra polypropelene coated AP facing. It provides a single solution to a variety of indoor and outdoor applications.

Operating Temperature Limit:  $0^{\circ}F$  to  $850^{\circ}F$  (-18°C to  $454^{\circ}C$ )

#### THERMAL CONDUCTIVITY ("K")

| Mean<br>Temperature | °F<br>°C | 75<br>24 |       | 200<br>93 | 300<br>149 | 400<br>204 | 500<br>260 |
|---------------------|----------|----------|-------|-----------|------------|------------|------------|
| Btu•in/(hr•ft²•     |          |          |       |           | 0.39       |            |            |
| W/m•°C              |          | 0.035    | 0.040 | 0.046     | 0.056      | 0.066      | 0.084      |

# SPECIFICATION COMPLIANCE

ASTM C1393, Type IIIA, IIIB, Category 2 ASTM E84, FHC 25/50

Recycled Content: Refer to JM.com

#### FSK. AP. and Ultra Faced Micro-Flex Comes in 3' and 4' Widths

| Thickness | 1" (25mm)*  | 1 1/2" (38mm) | 2" (51mm)  | 2 1/2" (64mm) | 3" (76mm)  | 4" (102mm) |
|-----------|-------------|---------------|------------|---------------|------------|------------|
| Length    | 52' (15.9m) | 30' (9.2m)    | 26' (7.9m) | 20' (6.1m)    | 18' (5.5m) | 13' (4.8m) |

<sup>\* 1&</sup>quot; Micro-Flex is only available with FSK facing.

# HTB 26 Spin-Glas®

High-temperature Formaldehyde-Free™ Fiberglass Blanket Insulation



HTB 26 Spin-Glas® is a lightweight, fiberglass blanket insulation designed for industrial applications. HTB 26 Spin-Glas is an excellent choice for applications requiring a low-density blanket. In addition, its high tensile strength provides resistance to damage during installation. This flexible blanket is ideal for heated, irregular surfaces. The insulation is US Coast Guard approved and complies with US Navy and Nuclear Regulatory Commission product standards.

Operating Temperature Limit: 1000°F (538°C)

## THERMAL CONDUCTIVITY ("K")

| Mean               | °F | 75    | 300   |
|--------------------|----|-------|-------|
| Temperature        | °C | 24    | 149   |
| Btu•in/(hr•ft²•°F) |    | 0.26  | 0.46  |
| W/m•°C             |    | 0.039 | 0.075 |

#### **AVAILABILITY**

|           | in      | mm         |
|-----------|---------|------------|
| Thickness | 1, 2, 3 | 25, 51, 76 |
| Width     | 24, 48  | 610, 1219  |
|           | ft      | m          |
| Length    | 88      | 27         |

1-inch thick material is two 24" wide rolls.

3-inch thick material comes in 50 foot length

# SPECIFICATION COMPLIANCE

ASTM C553, Type I, II, & V NRC 1.36; ASTM C795 MIL-DTL-24244 ASTM E84, FHC 25/50 ASTM C1139, Type I, Grade 2 Coast Guard/IMO Approved 164.109/79/0 MIL-DTL-32585, Type I & II





Recycled Content: Refer to JM.com

# Microlite® FSK Duct Wrap

Formaldehyde-free™ Fiberglass Duct Wrap



Microlite® FSK is a Formaldehyde-free™ fiberglass duct wrap that comes with an FSK vapor barrier facing. Microlite FSK is designed to wrap rectangular and spiral ducts, offering improved thermal control.

Operating Temperature Limit: 250°F (121°C)

#### THERMAL PERFORMANCE R-Value @ 75°F (24°C) Mean Temp.

INSTALLED (hreft2e°F)/Btu Type mm m2•°C/W 75  $1^{1}/_{2}$ 38 4.2 0.74 75 2 2<sup>1</sup>/<sub>5</sub> 5.6 N 99 51 75 56 6.0 1.08 75 76 8.3 1.46 75  $4^{2}/_{5}$ 112 12.0 2.16 100  $1^{1}/_{2}$ N 79 38 4.5 100 2 51 6.0 1.06 150  $1^{1}/_{2}$ 38 4.7 0.83 6.3 1.11

| OUT O | F PACKAG                      | iE<br>mm | (hr•ft2•°F)/Btu | m2•°C/W |
|-------|-------------------------------|----------|-----------------|---------|
| 75    | 1 <sup>1</sup> / <sub>2</sub> | 38       | 5.2             | 0.92    |
| 75    | 2                             | 51       | 6.9             | 1.22    |
| 75    | 21/5                          | 56       | 7.5             | 1.33    |
| 75    | 3                             | 76       | 10.3            | 1.81    |
| 75    | $4^{2}/_{5}$                  | 112      | 15.0            | 2.66    |
| 100   | $1^{1}/_{2}$                  | 38       | 5.6             | 0.99    |
| 100   | 2                             | 51       | 7.4             | 1.30    |
| 150   | $1^{1}/_{2}$                  | 38       | 6.0             | 1.06    |
| 150   | 2                             | 51       | 8.0             | 1.41    |

# SPECIFICATION COMPLIANCE

ASTM C553

• Type II – Type 75, 100 and 150

• Type III – Type 150

ASTM C1290

ASTM E84, FHC 25/50 - FSK Facing NFPA 90A and 90B

ASTM C1136, Type II – FSK Facing Canada: CGSB 51-GP-11M and CAN/ULC S102



Recycled Content: Refer to JM.com

# Microlite® Black PSK and White PSK Duct Wrap

Formaldehyde-free™ Fiberglass Duct Wrap



Microlite® PSK is a Formaldehyde-free™ fiberglass duct wrap that comes with a white or a black PSK vapor-barrier facing. The facing is offered without print for aesthetic purposes and is designed to be used in exposed applications. Microlite PSK is designed to wrap rectangular and spiral ducts, offering improved thermal control and aesthetic appeal.

Operating Temperature Limit: 250°F (121°C)

Matching PSK Tape available.

#### THERMAL PERFORMANCE

R-Value @ 75°F (24°C) Mean Temp.

| INSTALI | LED                           |    |                 |         |
|---------|-------------------------------|----|-----------------|---------|
| Type    | in                            | mm | (hr•ft2•°F)/Btu | m2•°C/W |
| 75      | 1 <sup>1</sup> / <sub>2</sub> | 38 | 4.2             | 0.74    |
| 75      | 2                             | 51 | 5.6             | 0.99    |
| 75      | 21/5                          | 56 | 6.0             | 1.08    |
| 75      | 3                             | 76 | 8.3             | 1.46    |
| 100     | 1 <sup>1</sup> / <sub>2</sub> | 38 | 4.5             | 0.79    |
| 100     | 2                             | 51 | 6.0             | 1.06    |
| 150     | $1^{1}/_{2}$                  | 38 | 4.7             | 0.83    |
| 150     | 2                             | 51 | 6.3             | 1.11    |
|         |                               |    |                 |         |

| OUT OF | OUT OF PACKAGE                |    |                 |         |  |  |  |  |  |
|--------|-------------------------------|----|-----------------|---------|--|--|--|--|--|
| Type   | in                            | mm | (hr•ft2•°F)/Btu | m2•°C/W |  |  |  |  |  |
| 75     | 1 <sup>1</sup> / <sub>2</sub> | 38 | 5.2             | 0.92    |  |  |  |  |  |
| 75     | 2                             | 51 | 6.9             | 1.22    |  |  |  |  |  |
| 75     | 2 <sup>1</sup> / <sub>5</sub> | 56 | 7.5             | 1.33    |  |  |  |  |  |
| 75     | 3                             | 76 | 10.3            | 1.81    |  |  |  |  |  |
| 100    | 1 <sup>1</sup> / <sub>2</sub> | 38 | 5.6             | 0.99    |  |  |  |  |  |
| 100    | 2                             | 51 | 7.4             | 1.30    |  |  |  |  |  |
| 150    | 1 <sup>1</sup> / <sub>2</sub> | 38 | 6.0             | 1.06    |  |  |  |  |  |
| 150    | 2                             | 51 | 8.0             | 1.41    |  |  |  |  |  |

# SPECIFICATION COMPLIANCE

ASTM C553

- Type II − Type 75, 100 and 150
- Type III Type 150 ASTM C1290\*

NFPA 90A and 90B

\*Facing provided free of print for aesthetic purposes ASTM E84, FHC 25/50 — FSK Facing

ASTM C1136, Type II – FSK Facing Canada: CGSB 51-GP-11M and CAN/ ULC S102



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### **MARINE INSULATION**

#### **Incombustible Hullboard**

Fiberglass Board Insulation



Incombustible Hullboard is a semi-rigid, fire-resistant fiberglass board insulation that provides thermal and acoustical control on naval and merchant vessels and drilling rig platforms. The resilient, semi-rigid insulation has a smooth surface designed specifically for facing adhesion, resulting in a clean, finished appearance. Incombustible Hullboard is US Coast Guard approved and complies with US Navy and Nuclear Regulatory Commission product standards.

Operating Temperature Limit:  $450^{\circ}F$  ( $232^{\circ}C$ )

### THERMAL CONDUCTIVITY ("K")

| Mean               | °F | 75    | 100   | 200   |
|--------------------|----|-------|-------|-------|
| Temperature        | °C | 24    | 38    | 93    |
| Btu•in/(hr•ft2•°F) |    | 0.23  | 0.25  | 0.31  |
| W/m•°C             |    | 0.033 | 0.036 | 0.045 |

#### **SOUND ABSORPTION COEFFICIENTS**

Complies with MIL-DTL-32585 Requirements Mounting Type A (Flat on the floor) [Formerly No. 4]

Thickness Frequency, Hz

| ın. | mm | 125  | 250  | 500  | 1000 | 2000 | 4000 | NKC* |
|-----|----|------|------|------|------|------|------|------|
| 1   | 25 | 0.06 | 0.29 | 0.75 | 0.99 | 1.04 | 1.02 | 0.75 |
| 2   | 51 | 0.24 | 1.00 | 1.11 | 1.08 | 1.06 | 1.05 | 1.05 |

<sup>\*</sup>Noise reduction coefficient.

#### **AVAILABILITY**

In mm
Thickness 1-4 (1" inc.) 25-102 (25.4 mm inc.)

Width & Length 24" X 36"; 24" X 48"; 48" X 30"

Made-to-Order sizes available. Check for availability with your account specialist

# SPECIFICATION COMPLIANCE

Coast Guard/IMO Approved 164.109/46/0

ASTM C612

MIL-DTL-32585

MIL-I-742F, Type II

Incombustible Hullboard can be used in combination with waffleboard and perforated glass cloth for fabricating Acoustic Absorptive Board per Section 3.2.1 of MIL-A-23054A.

Note: At times, a formal certificate of compliance is required to verify that a product meets an outside specification. In such instances, the request for the required certificate must be made at the time the order is placed. Should outside testing be a condition for certification, a charge is made to cover test expenses.

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# **Incombustible Microlite®**

Fiberglass Thermal and Acoustical Blanket



Incombustible Microlite® is a fiberglass blanket insulation that offers excellent acoustical and thermal control for use in a variety of marine applications. It is the recommended solution when design parameters prohibit the use of a rigid product. Incombustible Microlite is manufactured using our flame-attenuated process, delivering a product that is resilient and lightweight. The insulation is US Coast Guard approved and complies with US Navy and Nuclear Regulatory Commission product standards.

Operating Temperature Limit: 400°F (204°C)

### THERMAL CONDUCTIVITY ("K")

| Mean               | °F | 75    |
|--------------------|----|-------|
| Temperature        | °C | 24    |
| Btu•in/(hr•ft²•°F) |    | 0.23  |
| W/me°C             |    | N N34 |

#### SOUND-ABSORPTION COEFFICIENTS ASTM C423 - Type "A" Mounting

| pcf  | kg/m³ | in  | mm  | Facing | 125  | 250  | 500  | 1000 | 2000 | 4000 | NRC  |
|------|-------|-----|-----|--------|------|------|------|------|------|------|------|
| 0.75 | 12    | 1/2 | 13  | Plain  | 0.13 | 0.46 | 0.43 | 0.60 | 0.76 | 0.86 | 0.55 |
| 0.75 | 12    | 1   | 25  | Plain  | 0.15 | 0.58 | 0.62 | 0.75 | 0.84 | 0.90 | 0.70 |
| 0.75 | 12    | 2   | 51  | Plain  | 0.30 | 0.82 | 0.86 | 0.98 | 1.02 | 1.07 | 0.90 |
| በ 75 | 12    | 4   | 102 | Plain  | N 64 | 1 21 | 1 14 | 1 10 | 1 10 | 1 16 | 1 15 |

#### **AVAILABILITY**

Standard Width: 48" (1219 mm)\*

| Density |       |      | Thick | ness | 1    | Length |      |
|---------|-------|------|-------|------|------|--------|------|
| pcf     | kg/m³ | in.  | mm    | in.  | mm   | ft.    | m    |
| 0.75    | 12    | 1½   | 38    | 48   | 1219 | 100    | 30.5 |
| 0.75    | 12    | 2    | 51    | 48   | 1219 | 75     | 22.9 |
| 0.75    | 12    | 21/2 | 64    | 48   | 1219 | 50     | 15.3 |
| 0.75    | 12    | 3    | 76    | 48   | 1219 | 50     | 15.3 |

\*Additional widths available on a Special Product Price Inquiry (SPPI) basis. Note: 3/x" to 6" (89 mm to 152 mm) thicknesses available on a Special Product Price Inquiry (SPPI) basis

Roll

# SPECIFICATION COMPLIANCE

Coast Guard/ IMO Approved 164.109/38/0 ASTM C533, Types I & II NRC 1.36; ASTM C795 MIL-DTL-24244 ASTM E84, FHC 25/50 NFPA 90A & 90 B MIL-DTL-32585

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