# MINWOOL-1200® FLEXIBLE BATT INSULATION

MinWool-1200 Flexible Batt Insulation is made of inorganic fibers derived from basalt, a volcanic rock, with a thermosetting resin binder. Advanced manufacturing technology ensures consistent product quality, with high fiber density and low shot content, for excellent performance in high-temperature thermal control and fire resistance applications.

## ADVANTAGES

**Thermal Performance**. Good thermal conductivity values help maximize control of heat loss, contributing to reduced operating costs and greater energy savings.

**Lightweight, Low Dust**. Easy to handle and fabricate, these boards are easy to cut with a knife. Clean handling properties help reduce irritation and minimize job clean-up time and expense.

**Low Smoke & Flame Spread**. When tested in accordance with ASTM E84, UL 723, CAN/ULC-S102-M, these unfaced insulation boards have a flame spread rating of 5 & a smoke developed rating of 0. The faced insulation has a flame spread rating of 25 and a smoke developed rating of 5.

**Non-Combustible**. MinWool-1200 Industrial Board is rated as noncombustible in accordance with ASTM E136 and CAN4-S114-M.

**Mold Resistant**. MinWool-1200 does not support growth of fungi.

## APPLICATIONS

MinWool-1200 Flexible Batt Insulation provides excellent thermal insulation performance for mechanical, power and process systems operating from sub-ambient to 1200˚F(650˚C). These Flexible Batt Insulations are easily fabricated, cutting cleanly and easily with a knife. Very low in-service shrinkage helps prevent gaps from forming at joints, preventing costly thermal leaks. The insulation is designed to be field-jacketed. It may be installed directly on hot surfaces; system shut-down and staged heat-up are not required.

## AVAILABLE FORMS AND SIZES

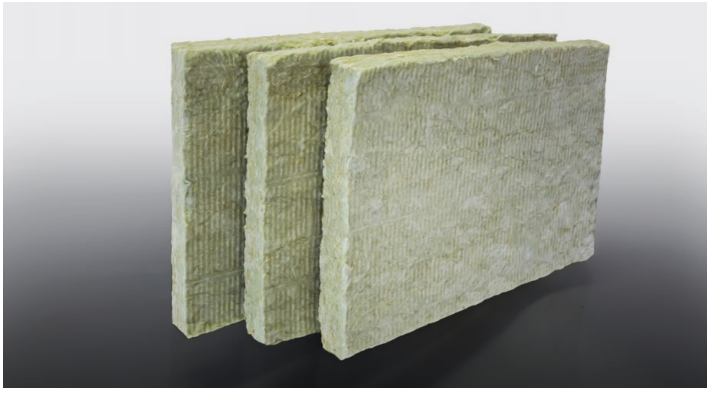
MinWool-1200 Flexible Batts are available in six nominal densities in accordance with ASTM C553 and in a range of standard thicknesses:

| Type | | | | | |
|---|---|---|---|---|---|
| Nominal Density | 1240 | 1260 | 1280 | 1210 | 1212 |
| lb/ft³ | 4 | 6 | 8 | 10 | 12 |
| kg/m³ | 64 | 96 | 128 | 160 | 192 |

**Standard Sizes**: 24" x 48" (610mm x 1219mm)
36" x 48" (914mm x 1219mm)
**Standard Thicknesses**: 1½" to 4" (38 mm to 102 mm)

| ASTM C553 TYPES | |
|---|---|
| 1-5 | All Batts |
| 6-7 | Types 1280-1212 |

| R-Value @ 75°F | |
|---|---|
| IB 1240 | 4.2 per inch of thickness |
| IB 1260-IB 1212 | 4.3 per inch of thickness |

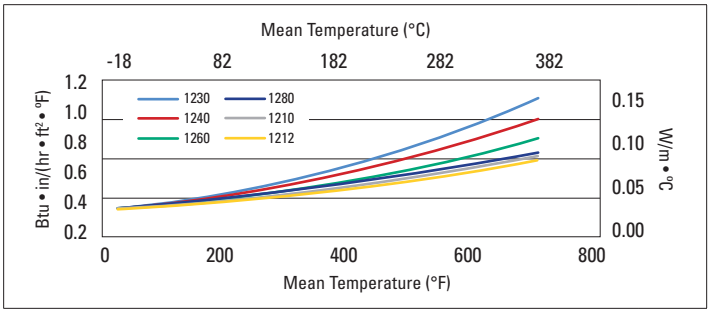


**Operating Temperature Limit:** 1200°F (650°C)

## SPECIFICATION COMPLIANCE

| | |
|---|---|
| ASTM C553 Material Specification | Complies |
| ASTM C356 In-Service Shrinkage | 0% at 1050˚F (566˚C);<br><2% at 1200˚F (650˚C) |
| ASTM C447<br>Maximum Service Temperature | 1200˚F (650˚C) |
| ASTM C665 Corrosivity to Steel | Passes |
| ASTM C795/C871/C692 Corrosion:<br>Austenitic Stainless Steel | Passes |
| ASTM C1104 Water Vapor Sorption | <1% by Weight, <.02% by Volume<br>@ 120˚F (50˚C), 95% RH |
| ASTM C1335 Shot Content | <25% |
| ASTM C1338 Fungi Resistant | Passes |
| ASTM E84<br>Flame Spread/Smoke Developed | Unfaced 5/0 or less<br>Faced 25/5 or less |
| ASTM E136 Non-Combustible | Passes |
| UL 723, CAN/ULC S102 | Unfaced 5/0 or less<br>Faced 25/5 or less |

## THERMAL CONDUCTIVITY




*MinWool-1200 Flexible Batt Insulation as tested in accordance with ASTM C177 and ASTM C518.

# MINWOOL-1200® FLEXIBLE BATT

HIGH-TEMPERATURE INSULATION

DATA SHEET

## THERMAL PERFORMANCE (IP UNITS) *

| Apparent Thermal Conductivity | | | | | |
|---|---|---|---|---|---|
| MeanTemp (°F) | 1240 | 1260 | 1280 | 1210 | 1212 |
| 25 | 0.21 | 0.22 | 0.22 | 0.22 | 0.22 |
| 75 | 0.24 | 0.23 | 0.23 | 0.23 | 0.23 |
| 100 | 0.26 | 0.25 | 0.25 | 0.25 | 0.25 |
| 200 | 0.32 | 0.30 | 0.30 | 0.30 | 0.30 |
| 300 | 0.40 | 0.36 | 0.36 | 0.35 | 0.35 |
| 400 | 0.49 | 0.42 | 0.42 | 0.41 | 0.40 |
| 500 | 0.62 | 0.53 | 0.49 | 0.47 | 0.46 |
| 600 | 0.75 | 0.63 | 0.56 | 0.54 | 0.52 |
| 700 | 0.90 | 0.75 | 0.64 | 0.62 | 0.59 |

## THERMAL PERFORMANCE (SI UNITS) *

| Apparent Thermal Conductivity | | | | | |
|---|---|---|---|---|---|
| Mean Temp (°C) | 1240 | 1260 | 1280 | 1210 | 1212 |
| -4 | 0.030 | 0.032 | 0.032 | 0.032 | 0.032 |
| 24 | 0.035 | 0.033 | 0.033 | 0.033 | 0.033 |
| 38 | 0.037 | 0.036 | 0.036 | 0.036 | 0.036 |
| 93 | 0.046 | 0.043 | 0.043 | 0.043 | 0.043 |
| 149 | 0.058 | 0.052 | 0.052 | 0.050 | 0.050 |
| 204 | 0.071 | 0.061 | 0.061 | 0.059 | 0.058 |
| 260 | 0.089 | 0.076 | 0.071 | 0.068 | 0.066 |
| 316 | 0.108 | 0.091 | 0.081 | 0.078 | 0.075 |
| 371 | 0.130 | 0.108 | 0.092 | 0.089 | 0.085 |

## SOUND ABSORPTION COEFFICIENTS

| Thickness | | | 1/3 Octave Band Center Frequencies, Hz | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type | (in) | (mm) | 125 | 250 | 500 | 1000 | 2000 | 4000 | NRC |
| 1240 | 1 ½ | 40 | 0.13 | 0.48 | 1.02 | 1.08 | 1.02 | 1.01 | 0.90 |
| | 2 | 50 | 0.20 | 0.61 | 1.07 | 1.06 | 1.04 | 1.07 | 0.95 |
| | 4 | 100 | 0.88 | 1.14 | 1.17 | 1.08 | 1.06 | 1.10 | 1.10 |
| 1260 | 1 ½ | 40 | 0.18 | 0.62 | 1.08 | 1.08 | 1.03 | 1.07 | 0.95 |
| | 2 | 50 | 0.25 | 0.85 | 1.15 | 1.10 | 1.04 | 1.06 | 1.05 |
| | 3 | 75 | 0.80 | 1.07 | 1.11 | 0.99 | 0.98 | 0.96 | 1.05 |
| | 4 | 100 | 0.99 | 1.01 | 1.10 | 1.03 | 1.03 | 1.05 | 1.05 |
| 1280 | 1 ½ | 40 | 0.13 | 0.64 | 1.08 | 1.04 | 1.04 | 1.07 | 0.95 |
| | 2 | 50 | 0.32 | 0.90 | 1.11 | 1.01 | 1.01 | 1.05 | 1.00 |
| | 4 | 100 | 1.11 | 0.91 | 1.03 | 1.06 | 1.06 | 1.07 | 1.00 |

## PRODUCT CERTIFICATION

When ordering material to comply with any government specification or any other listed specification, a statement of that fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing, and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing. Please refer to IND-CSP-3 for Certification Procedures and Charges. Call customer service for more information.

## QUALITY STATEMENT

Industrial Insulation Group products are designed, manufactured and tested to strict quality standards in our own facilities. This along with third party auditing is your assurance that this product delivers consistent high quality.

## ADDITIONAL INFORMATION AND SDS

Please visit our website at www.jm.com/industrial
Customer Service, Technical & General Information: (800) 866-3234

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