ROXUL®
FCIA Firestop
Manufacturers New
Products & Systems Panel
A Global Presence – Rockwool®

- Founded in 1909
- 29 plants, represented in 40+ countries
- Largest producer of stone wool
- Not a niche product line
ROXUL® North America

Grand Forks

Milton

Marshall County
What is Mineral Wool?

• Stone wool or “mineral wool” products are made from a combination of natural basalt rock and recycled slag.
• Raw Materials are melted into a molten state and then spun into stone fibers.
• Minor amounts of binder & oil are added.
• Various manufacturers feature up to 40%+ recycled content.
Industry Definition: Mineral Wool

Technical Codes & Standards/Industry Associations define Mineral Wool and Mineral Fiber to include the following:

- **Mineral Fiber**
  - Glass Fiber
  - Rock & Slag Fiber

- **Mineral Wool (Stone Wool)**
  - Rock & Slag Fiber (does not include glass fiber by definition).
Frequently Asked Questions

1. What products should I use?
CURTAINROCK® 40 and CURTAINROCK® 80

Designed specifically for use in fire-rated curtain wall systems; suited for back pan or mechanical fastening applications.

Properties:
- Low moisture sorption rate; effectively drains water away from exterior walls
- Delivers high R-values for lasting thermal protection
- Non-combustible product with a melting point of approximately 2150°F (1177°C)
- Sound absorbent
- Chemically inert; non-corrosive
- Repels water, does not rot, or promote the growth of mildew, fungi, or bacteria
- Can be fabricated and faced with reinforced foil facings
- Available in a variety of dimensions
- Approved for use as a component of UL-approved systems
- ROXUL can contribute to earning LEED® points
ROXUL SAFE®
Designed for commercial, industrial, and residential buildings as a fire stopping insulation and used in conjunction with a fire sealant to prevent passage of fire and smoke.

Ideal for filling:
- Perimeter gaps between concrete floor slabs and exterior wall systems
- Around conduit pipe and duct openings through walls and floor slabs
- Between fire walls and ceiling slabs

Fire Performance

<table>
<thead>
<tr>
<th>Product</th>
<th>Specification</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFE®, CURTAINROCK® 40/80</td>
<td>ASTM E 136</td>
<td>Behaviour of Materials at 750 °C (1382 °F)</td>
<td>Non-Combustible</td>
</tr>
<tr>
<td>SAFE®, CURTAINROCK® 40/80</td>
<td>CAN4 S114</td>
<td>Test for Non-Combustibility</td>
<td>Non-Combustible</td>
</tr>
<tr>
<td>SAFE®, CURTAINROCK® 40/80</td>
<td>ASTM E 84(UL 723) and CAN/ULC S102</td>
<td>Surface Burning Characteristics</td>
<td>Flame Spread = 0 Smoke Developed = 0</td>
</tr>
<tr>
<td>CURTAINROCK® 40/80</td>
<td>ASTM E2307/E119</td>
<td>Perimeter Fire Barrier Systems</td>
<td>Complies</td>
</tr>
<tr>
<td>SAFE®</td>
<td>CAN4 S115M</td>
<td>Standard Test Method/Fire Stop Systems</td>
<td>Complies</td>
</tr>
<tr>
<td>SAFE®</td>
<td>CAN/ULC-S129</td>
<td>Smoulder Resistance</td>
<td>0.01%</td>
</tr>
</tbody>
</table>
UL Category – XHDG
Perimeter Fire Containment Systems

Numbering System:
1. CW (interface with fire-rated floor and nonfire-rated exterior curtain wall)
2. S/D (static versus dynamic in regards to system movement capabilities)

<table>
<thead>
<tr>
<th>No. Range</th>
<th>Max Clearance Distance Between Curtain Wall &amp; Perimeter of Floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000-0999</td>
<td>Less than or equal to 2 in.</td>
</tr>
<tr>
<td>1000-1999</td>
<td>Greater than 2 in. and less than or equal to 6 in.</td>
</tr>
<tr>
<td>2000-2999</td>
<td>Greater than 6 in. and less than or equal to 12 in.</td>
</tr>
</tbody>
</table>
## Online Certifications Directory

### Search Results

You may choose to **Refine Your Search**.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Category Name</th>
<th>Link to File</th>
</tr>
</thead>
<tbody>
<tr>
<td>System No. CW-D-2004</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2004</td>
</tr>
<tr>
<td>System No. CW-D-2014</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2014</td>
</tr>
<tr>
<td>System No. CW-D-2016</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2016</td>
</tr>
<tr>
<td>System No. CW-D-2018</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2018</td>
</tr>
<tr>
<td>System No. CW-D-2025</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2025</td>
</tr>
<tr>
<td>System No. CW-D-2026</td>
<td>Perimeter-fire-containment Systems</td>
<td>XHDG.CW-D-2026</td>
</tr>
</tbody>
</table>

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Model number information is not published for all product categories. If you require information about a specific model number, please contact [Customer Service](#) for further assistance.

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Forming Materials

See General Information for Forming Materials

ROXUL INC
8024 ESQUESING LINE
MILTON, ON L9T 6W3 CANADA


Frequently Asked Questions

2. How do I install it?

- Mechanically Fastened Heat Welded Pins
- Adhesives

With a typical max temperature of approx. 300F, the adhesive can fail very quickly in the event of a fire and no longer hold the spandrel insulation in place.
Always refer to the UL Listing for Install Instructions

H. Curtain Wall Insulation* — Min 2 in. thick mineral wool board insulation, unfaced or faced on one side with aluminum foil/scrim vapor retarder, supplied in min 36 in. wide boards. Insulation boards to be installed with no vertical seams. A full-width board shall be centered at the midheight of floor and tightly fitted between vertical mullions, flush with interior surface of framing. The centered board shall be secured to the stiff back channels (Item 2F) located approx 6 in. above and below the floor with cup head weld pins (Item 2J) spaced max 10 in. OC along each channel. The remainder of the spandrel panel framing above and below the centered full-width board shall be filled in with additional lengths of board cut to fit tightly between mullions and with the horizontal seams between boards sections tightly butted. The boards shall be secured to the spandrel panel perimeter angles with cup head weld pins at each corner of each board and spaced max 10 in. OC. When faced boards are used, butted seams to be covered with min 4 in. wide aluminum foil tape.

ROCKWOOL MALAYSIA SDN BHD — CurtainRock 80

ROXUL INC — CurtainRock 80

I. Framing Covers - Curtain Wall Insulation* — Min 8 in. wide strips cut from the same min 2 in. thick mineral wool batt insulation used for the curtain wall insulation (Item 2H). Framing covers to be centered over mullions, and secured to the spandrel panel perimeter angles (Item 2E) with cup head weld pins (Item 2J) spaced max 12 in. OC. Where more than one spandrel panel occurs between vertically separated vision panels, the horizontal transom between spandrel panels shall also be covered with an 8 in. wide framing cover in the same manner as on the vertical mullions. Framing covers on mullions to abut the mineral wool batt safing material (Item 3A) above and below floor.

ROCKWOOL MALAYSIA SDN BHD — CurtainRock 80

ROXUL INC — CurtainRock 80
With ROXUL® SAFE, it is important to note the orientation and compression.

Compression is typically 25% between slab and inside face of spandrel insulation and is important for creating a seal that maintains its integrity to prevent flames breaching floor above.

J. Weld Pin — No. 12 gauge galv steel weld pin with nom 1-3/16 in. diam galv steel cup head. Cup head weld pins provided in two lengths. One length to be equal to thickness of curtain wall insulation (Item 2H) and second length to be equal to thickness of curtain wall insulation plus thickness of framing cover (Item 2I). Cup head weld pins inserted through curtain wall insulation and mullion covers and welded to spandrel panel perimeter angles at max OC spacings referenced in Items 2H and 2I.

3. Perimeter Fire Containment System — The perimeter fire containment system shall incorporated the following construction features:

A. Forming Material* — Nom 4 in. thick, mineral wool batt safing material to be installed in continuous pieces between mullion clips. Safing material to be cut to a min 4-1/2 in. width and stacked to a thickness which is at least 25 percent greater than the width of the linear gap between the curtain wall and the edge of the concrete floor slab. The safing material is compressed and inserted cut-edge-first into the linear gap such that its top
Frequently Asked Questions

3. What fire rating does your product have? How do I achieve _____ fire rating?

Must use a tested system to achieve a fire rating. Many resources available:

- Find a listed system that is similar to the concept designed that meets their fire endurance requirements.
- Refer to UL and Intertek Directories
- Utilize www.roxul.com for our UL listings
- Sealant manufactures website directories

Can’t find a system that works?
Contact the manufacturer for assistance. We cannot provide engineering judgements but we can point people in the right directions.
Frequently Asked Questions

4. What fire/smoke sealant do I use?

The smoke sealant provides a smoke barrier to the system and serves to hold the SAFE in place during fire and building movements.

Approved smoke sealant manufacturer and type is specified in the UL listing.

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ROXUL INC. — SAFE

B. Fill, Void or Cavity Material* — Min 1/8 in. wet thickness of fill material spray-applied over top of forming material and lapping min 1/2 in. onto the top surface of the concrete floor and onto the concrete spandrel panel or tilt-up panel.

SPECIFIED TECHNOLOGIES INC — SpecSeal AS200 Elastomeric Spray or SpecSeal Fast Tack Spray

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 672 FC Firestop Joint Spray, CFS-SP SIL Firestop Silicone Joint Spray or CFS-SP WB Firestop Joint Spray

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Last Updated on 2010-03-29
Mineral Wool Contributes to Life Safety Concerns

- Avoid costly tests like NFPA 285 by using non-combustible materials
- Advocating for fire fighter safety
- Not just curtain wall assemblies – interior walls and stud cavities, firewalls for close proximity buildings, rain screen applications

How can contractors help?

- When given the option, use mineral wool on bids
- Defend specifications
- Participate in the conversation
References to NFPA 285 in the Building Codes

- NFPA 285 is referenced compliance standard for:
  - Concealed Spaces (Section 718)
  - Wall Performance Requirements, WRB’s (Section 1403)
  - MCM exterior wall systems (Section 1407)
  - HPL exterior wall systems (Section 1409)
  - Roof Structures/exterior wall panels (Section 1509)
  - Exterior Walls with Plastics (Section 2603.5)
Recent Building Code Changes Related to NFPA 285

- Recent adoptions by local jurisdictions have exempted NFPA 285 requirements (exterior wall section and foam plastics chapter)
  - Indiana, Virginia, Washington DC
  - Fully sprinklered buildings

- NFPA 285 test is:
  - Costly
  - Results limited to system tested
  - Extrapolations/variability is limited
Pitfalls to NFPA 285 Exemptions

- Sprinklers are not 100 percent reliable
  - Balanced design approach concept being violated
- Exterior fires are not controlled by interior sprinklers
  - Dumpster fires
  - Vehicle fires
  - Trash/storage fires

Photos courtesy of Kingspan Insulated Metal Panels
<table>
<thead>
<tr>
<th>No.</th>
<th>COMPONENT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Concrete Foundation</td>
<td>Concrete foundation wall</td>
</tr>
<tr>
<td>2</td>
<td>Bearing Plate</td>
<td>Standard bearing plate</td>
</tr>
<tr>
<td>3</td>
<td>Rim Joist</td>
<td>Standard rim joist</td>
</tr>
<tr>
<td>4</td>
<td>Foam Insulation</td>
<td>Type: Foam Plastic</td>
</tr>
<tr>
<td></td>
<td>Maximum R-Value: 7.5/inch</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Protective Covering of Foam Insulation</td>
<td>Certified Manufacturer: ROXUL Inc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Product Name: COMFORTBATT® / COMFORTBOARD™ IS</td>
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<tr>
<td></td>
<td></td>
<td>Assembly Class: Classification B</td>
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<tr>
<td></td>
<td></td>
<td>Minimum Thickness: 5-1/2 inch (140 mm)</td>
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<tr>
<td></td>
<td></td>
<td>Minimum Density: 2 lb/ft³ (32 kg/m³)</td>
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<tr>
<td></td>
<td></td>
<td>Installation: Friction fit into the joist cavity.</td>
</tr>
<tr>
<td>6</td>
<td>Floor Joists</td>
<td>Standard floor joists system</td>
</tr>
<tr>
<td>7</td>
<td>Sheathing</td>
<td>Standard floor sheathing</td>
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### AGENDA

<table>
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<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-9:00AM</td>
<td>REGISTRATION</td>
</tr>
<tr>
<td>9:00-9:15AM</td>
<td>WELCOME/INTRODUCTIONS</td>
</tr>
<tr>
<td>9:15-10:15AM</td>
<td>RICK ROOS, PROJECT MANAGER FIRE &amp; ACOUSTICS, ROXUL INC. UNDERSTANDING STONE WOOL INSULATION FOR INTERIOR AND EXTERIOR COMMERCIAL BUILDING APPLICATIONS</td>
</tr>
<tr>
<td>10:15-11:15</td>
<td>JOHN VALIULIS FIREFRICATION ENG., VALIULIS CONSULTING LLC UNDERSTANDING IBC REQUIREMENTS FOR FIRE COMPARTMENTATION</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td>BREAK</td>
</tr>
<tr>
<td>11:30-12:30PM</td>
<td>TONY CRIMI, PRESIDENT AT A.C. CONSULTING SOLUTIONS INC. DO ALL INSULATIONS PERFORM THE SAME IN A FIRE INCIDENT?</td>
</tr>
<tr>
<td>12:30-1:30PM</td>
<td>LUNCH</td>
</tr>
<tr>
<td>1:30-2:30PM</td>
<td>ART PARKER, SR. FIRE PROTECTION ENGINEER, JENSEN HUGHES DON’T GET BURNED BY MISUNDERSTANDING NFPA 285</td>
</tr>
<tr>
<td>2:30-3:30PM</td>
<td>SEAN DECRANE, BATTALION CHIEF AT CLEVELAND FIRE DEPARTMENT FIRE FIGHTERS CHALLENGES IN TODAY’S BUILT ENVIRONMENT</td>
</tr>
<tr>
<td>3:30-4:00PM</td>
<td>OPEN QUESTION PERIOD – ASK OUR EXPERTS</td>
</tr>
<tr>
<td>4:00-4:15PM</td>
<td>CLOSING REMARKS</td>
</tr>
</tbody>
</table>