

# COMFORTBOARD™ 110

High-Performance Thermal Insulated Sheathing



# ROCKWOOL COMFORTBOARD™ 110 Creates Breathable Wall Systems

ROCKWOOL COMFORTBOARD™ 110 (Thermal Insulated Sheathing) is a rigid, high-density, stone wool insulation board designed for use as an exterior continuous insulation in commercial applications.

COMFORTBOARD™ 110 is a thermally efficient, moisture resistant, vapor permeable board and takes the place of other external sheathing insulations to create high-performance wall assemblies that are effective against fire, moisture and thermal bridging, and allow for superior drying potential.

This high-density board provides the rigidity and durability needed for many exterior cladding assemblies, such as lightweight metal and composite panels systems. COMFORTBOARD™ 110 is available in standard thicknesses of 1", 1.25", 2", 2.5" and 3" with R-values ranging from R4 to R12.



- ✓ Vapor Permeable
- ✓ Fire Resistant
- ✓ Environmentally Sustainable
- ✓ Moisture Resistant
- ✓ Stable Long-Term R-Value
- ✓ Dimensionally Stable
- ✓ UV Resistant
- ✓ Sound Absorbent

## A True Continuous Insulation

In commercial steel stud applications, thermal bridging plays a large part in heat loss, leading to increased energy consumption. This assembly provides a true continuous insulation, when combined with ROCKWOOL COMFORTBATT® Steel Stud insulation in the stud wall to form a high-performance, split insulation wall system. COMFORTBOARD™ 110 has superior compressive resistance and is compatible with lightweight hat channel supported cladding systems, eliminating the need for Z-furring strips which can cause thermal bridging. This allows for a reduced overall thickness of the wall system and greatly improves the energy efficiency of the building.

COMFORTBOARD™ 110 provides maximum thermal performance, fire resistance and drying potential using sustainable materials.

The ROCKWOOL BEDR™ Wall Rainscreen System is ideal for metal panel systems and comprises a high-density, rigid COMFORTBOARD™ 110 board in the external cavity, combined with ROCKWOOL thermal COMFORTBATT® insulation in the exterior stud wall cavity.

## Thermal Resistance

| Standard         | Temperature  | R-value/inch     | RSI value/25.4 |
|------------------|--------------|------------------|----------------|
| ASTM C518 (C177) | 25°F (-4°C)  | 4.3 hr.ft².F/Btu | 0.74 m²K/W     |
|                  | 40°F (4°C)   | 4.2 hr.ft².F/Btu | 0.72 m²K/W     |
|                  | 75°F (24°C)  | 4.0 hr.ft².F/Btu | 0.70 m²K/W     |
|                  | 110°F (43°C) | 3.6 hr.ft².F/Btu | 0.64 m²K/W     |

## Compressive Strength

| Standard  |        |                     |
|-----------|--------|---------------------|
| ASTM C165 | at 10% | 1220 psf (58.5 kPa) |
|           | at 25% | 1880 psf (90.0 kPa) |

## Product Details

| Product           | Density                                       | Standard Thickness        | R-value              | Standard Dimensions W x L                                     |
|-------------------|---|---------------------------|----------------------|---|
| COMFORTBOARD™ 110 | ASTM C165-00<br>Actual 11 lb/ft³, (176 kg/m³) | 1", 1.25", 2.0", 2.5", 3" | R4, R5, R8, R10, R12 | 24" x 48" (610 mm x 1219 mm)<br>48" x 72" (1219 mm x 1829 mm) |



### Energy Efficient/Vapor Permeable

The trend toward energy efficiency is driving the need for high-performance building envelopes. These advanced wall systems are designed to produce higher effective R-values and minimize air leakage. This increases the need to design walls more carefully and reduce the risk of trapping moisture.

COMFORTBOARD™ 110 vapor permeable exterior insulation enables high-performance wall systems to have superior drying potential, minimizing the risk of condensation and water accumulation. The vapor permeance of ROCKWOOL insulation allows for increased drying potential without trapping transient moisture in the assembly. Foam plastic insulations have low vapor permeability and can work as vapor retarders. This may trap moisture within the wall, leading to mold or premature deterioration of building components.

### Moisture Resistance

| Standard   |  |                                       |
|------------|--|---------------------------------------|
| ASTM C1104 | Moisture Sorption                          | 0.28 %                                |
| ASTM E96   | Water Vapor Transmission, Desiccant Method | 2160 ng/Pa.s.m <sup>2</sup> (35 perm) |
| ASTM C209  | Water Absorption                           | 1.2 %                                 |

### Fire Resistant

COMFORTBOARD™ 110 is fire resistant, able to withstand temperatures up to 2150°F (1177°C), and does not produce smoke or propagate flames. This provides a critical line of defense, keeping occupants safe and reducing property damage in the event of a fire.

### Fire Performance

| Standard          |                                 |   |
|-------------------|---------------------------------|---|
| CAN4 S114         | Test for Non-Combustibility     | Non-Combustible                         |
| ASTM E84 (UL 723) | Surface Burning Characteristics | Flame Spread = 0<br>Smoke Developed = 0 |
| CAN/ULC S102      | Surface Burning Characteristics | Flame Spread = 0<br>Smoke Developed = 0 |

### Dimensionally Stable

Metal panel cladding assemblies are subject to wide temperature changes from the exterior. This can cause shrinking and expanding in other insulation materials, resulting in gaps and significant heat loss in cold temperatures and vice versa in warm temperatures. COMFORTBOARD™ 110 remains dimensionally stable behind the assembly wall and does not expand, contract or bow with thermal cycles. This provides for a long-term, energy-efficient wall assembly.

At the ROCKWOOL Group, we are committed to enriching the lives of everyone who comes into contact with our solutions. Our expertise is perfectly suited to tackle many of today's biggest sustainability and development challenges, from energy consumption and noise pollution to fire resilience, water scarcity and flooding. Our range of products reflects the diversity of the world's needs, while supporting our stakeholders in reducing their own carbon footprint.

Stone wool is a versatile material and forms the basis of all our businesses. With approx. 10,500 passionate colleagues in 38 countries, we are the world leader in stone wool solutions, from building insulation to acoustic ceilings, external cladding systems to horticultural solutions, engineered fibres for industrial use to insulation for the process industry and marine & offshore.

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