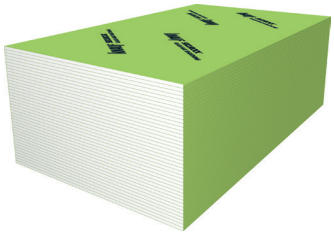
KNAUF SECUROCK® GLASS-MAT SHEATHING 12.7MM AND *15.9MM

(*ONLY 15.9MM IS TYPE F ACCORDING TO EN 15283-1)



Knauf Securock® Glass-Mat Sheathing is a non-combustible, moisture-resistant and mould-resistant high-performance panel for wet areas, tile backing and semi-exterior applications.

The panels have non-woven glass-mat facers that repel water and feature square edges. The front facer glass-mat is primed and engineered to accept the application of Knauf finishing systems. The 5/8" (15.9mm) board is Type F (Fire) according to the EN 15283-1, A1 non-combustible according to EN 13501-1 + A1:2013, and non-combustible according to BS 476 Part 4.

The boards can also be used as a backer wall for cladding systems such as metal, aluminium or composite cladding installed over the backer wall. Refer to your Knauf representative for more information.

Product Features

High-Performance Interior and Semi-Exterior Wall Panels with Moisture and Mould Resistance

- Specially engineered gypsum core to minimise mould growth.
- Layered with inorganic non-woven glass-mat front and back facers offering exceptional water resistance.
- Suitable for use in protected semi-exposed wall applications, where high moisture is expected.
- Suitable for semi-exterior applications, without direct exposure to rain, such as walls, soffits, and eaves.
- Score and snap easily like regular plasterboard for quick installation.
- To use in interior applications where glass-mat gypsum panels are desired.
- To use as backing panel or substrate for tile applications up to 75kg/m^2.
- To use in most exterior systems when properly detailed by exterior finish manufacturers.
- Exceed expectations and meet the standards of ASTM C1178 part 5.2.5 (Standard Specification for Coated Glass-Mat Water-Resistant Gypsum Backing Panel).
- Comply to requirements of ASTM C1177 (Standard Specification for Coated Glass Mat Gypsum Substrate to Use as Sheathing).
- Exceed expectations and meet the standards of EN 15283-1 (Gypsum boards with fibrous reinforcement - Part 1) that conform to the provisions of the European CPR-Construction Products Regulation and related CE Marking technical requirements.

Advantages

Mould-resistant
High resistance to mould and mildew, scoring a 10 when tested in accordance with ASTM D3273.

Moisture-Resistant
Glass-mat facer on both sides repel water, Type H1 according to EN 15283-1 (Water absorption < 5%).

Quick and Dry Installation
Quick score and snap with neither sawing or special tools.

Exposure
Can be exposed to limited weather for up to 12 months after installation in interior and exterior applications. The product should be covered by the recommended interior or exterior finishing like sheathings, claddings, or sidings.

Warranted Performance
Knauf Securock® Glass-Mat Sheathing is guaranteed for 5 years against manufacturing defects. See warranty for details.

Limitations for Interior and Semi-Exterior Walls / Interior Ceilings

1. Avoid direct and constant exposure to heat above 50°C. This condition applies during installation.
2. Specific requirements regarding framing spacing, fastener spacing, and fastener specifics to provide required lateral load resistance are the responsibility of the design professional. (Refer to technical data and specifications in the Knauf Glass-Mat Wet Area Installation Guide and Knauf Glass-Mat Exterior Ceiling Systems).
3. Not recommended for lamination on masonry surfaces. Use furring channels or metal framing.
4. Maximum stud spacing is 24" (610mm) centres.
5. Knauf Securock® Glass-Mat Sheathing is not a finished surface.

Finishing and Decorating for Interior and Semi-Exterior Walls / Interior Ceilings

For high-quality finishing results, Knauf recommends the following products:

- Knauf setting type compound such as Knauf Sheetrock® Durabond® 90
- Knauf joint tape such as Knauf Paper Joint Tape

Panels should not be finished until building is completely enclosed. The nature of the texture and absorption properties of the panel will require an additional skim coat on the entire panel surface with joint compound in most applications. Additionally, an aesthetic benchmark or mock-up is recommended for establishing and demonstrating an approved finishing system to coordinate the expectations of the design professionals with those of the contracted workforce. The finished appearance of the constructed standard should be approved in advance of any widespread work. Please refer to "Knauf Wet Area Installation Guide" for more information.

For installation instructions for tile backing and waterproofing systems, please contact the manufacturer of the product.

Painting products and systems used should comply with recommendations and requirements in appendices of ASTM C840. For priming and decorating with paint, texture or wall covering, follow manufacturer's directions for materials used.

Allowable Uniform Wind Load (lbs./sq. ft.) for 5/8" - Thick Panels [kN/m² for 15.9mm-Thick Panels]

Frame Spacing	Fastener Spacing Inch (mm)	Allowable Pressure lbf/sq. ft. (kN/m² or kPa)
12" (305mm)	4 (102)	96 (4.59) 67 (3.21)
	6 (152)	50 (2.39)
	8 (203)	75 (3.59)
16" (406mm)	4 (102)	50 (2.39)
	6 (152)	38 (1.82)
	8 (203)	34 (1.63)
24" (610mm)	4 (102)	27 (1.29)
	6 (152)	24 (1.15)
	8 (203)	

Allowable Uniform Wind Load (lbs./sq. ft.) for 1/2" - Thick Panels [kN/m2 for 12.7mm-Thick Panels]

Frame Spacing	Fastener Spacing Inch (mm)	Allowable Pressure lbf/sq. ft. (kN/m² or kPa)
12" (305mm)	4 (102)	75 (3.59)
	6 (152)	35 (1.67)
	8 (203)	26 (1.24)
16" (406mm)	4 (102)	40 (1.91)
	6 (152)	26 (1.24)
	8 (203)	26 (1.24)
24" (610mm)	4 (102)	26 (1.24)
	6 (152)	17 (0.81)
	8 (203)	16 (0.76)

NOTES: Applicable for steel framing. The values in this table are based on testing per ASTM E330 and represent the capacity of the sheathing to resist flexural failure or fastener pull-through with a 3.0 factor of safety. Capacities are based on a minimum fastener head diameter of 0.325" (8.3mm) (#6 bugle head screw). The withdrawal resistance of fasteners from framing is different on several factors, including but not limited to fastener type, fastener length, and framing properties. The specification of fasteners is the responsibility of the Designer of Record. Manufacturer's recommendations are given below. These capacities assume continuous support of each stud flange over the full length of the sheathing panel. Allowable pressures are based on a maximum deflection limitation of L/360. Consult Knauf representative for higher deflection limitations. Allowable pressure values are for short-term wind loads. Framing design is independent of these values. The design capacities of assemblies constructed with pneumatically-driven fasteners are beyond the scope of this submittal sheet.

Product Data

Thickness	1/2" (12.7mm) or 5/8" (15.9mm)
Width	4' (1220mm)
Length	8' (2440mm). Other sizes are available. Consult your Knauf sales office or representative for more information.
Nominal Weight	(10.9 ± 0.5)kg/m^2 for 1/2" (12.7mm thickness), (13.6 ± 0.6)kg/m^2 for 5/8" (15.9mm thickness).
Edge	Square edges
Configuration Compliance with Standards	Meets or exceeds the physical property requirements of ASTM C1178 part 5.2.5, ASTM C1177, and EN 15283-1
Fire rated Assemblies	Knauf Securock® Glass-Mat Sheathing can be engineered to achieve 1-hour and up to 2-hour fire resistance level according to BS EN 1364-1:2015.
Reaction to Fire	Knauf Securock® Glass-Mat Sheathing has a non-combustible core when tested in accordance with BS 476 Part 4 1970 and A1 non-combustible according to EN 13501-1 + A1:2013.
Tensile Bond	Exceeds requirements for both cementitious and acrylic adhesives per ASTM C297 and BS EN 12004 standards
Country of Origin	Thailand

Physical Properties (According to ASTM C1177 and EN 15283-1)	**1/2" (12.7mm) Knauf Securock® Glass-Mat Sheathing**	**5/8" (15.9mm) Knauf Securock® Glass-Mat Sheathing Type F**
Weight, Nominal (kg/m^2)	10.9 ± 0.5	13.6 ± 0.6
Flexural Strength, Parallel, lbf (N)	> 80 (356) ASTM C1177 Method B	> 100 (445) ASTM C1177 Method B
Flexural Strength, Transverse Direction, lbf (N)	> 48 (214) EN 15283-1	> 60 (267) EN 15283-1
Flexural Strength, Perpendic, lbf (N)	> 100 (445) ASTM C1177 Method B	> 140 (623) ASTM C1177 Method B
Flexural Strength,Longitudinal Direction, lbf (N)	> 123 (546) EN 15283-	> 154 (684) EN 15283-1
***R-Value Thermal Resistance (m2.K/W)**	0.05	0.06
Reaction to Fire (A1 – EN-13501-1, BS 476: Part 4)	Non-combustible	Non-combustible
Resistance to Growth of Mould - ASTM D3273 score	10/10	10/10
Water Absorption (% of weight) - EN 15283-1, Type H1	< 5 %	< 5 %

*R: Data of thermal resistances are based on tabulated design values provided in the BS EN 12524:2000 - Building materials and products. Hygrothermal properties standard for gypsum boards.

Test Data

Moisture and Mould Resistance: Knauf Securock® Glass-Mat Sheathing resists moisture and mould and complies with ASTM C1178 for water resistance part 5.2.5. In independent lab tests conducted on Knauf Securock® Glass-Mat Sheathing at the time of manufacture per ASTM D3273, Standard Test Method for Resistance to Growth of Mould on the Surface of Interior Coatings in an Environmental Chamber, the panel score was 10.

This ASTM lab test may not accurately represent the mould performance of building materials in actual use. Given unsuitable project conditions during storage, installation or after completion, any building material can be affected by mould. To manage the growth of mould, the best and most cost-effective strategy is to protect building products from water exposure during storage and installation as well as after completion of the building. This can be accomplished by using good design and construction practices.

Installation in Interior and Semi-Exterior Applications

Knauf Securock® Glass-Mat Sheathing shall be installed in accordance with Knauf Glass-Mat Wet Area Installation Guide, Knauf Glass-Mat Exterior Ceiling Systems Manual, and Knauf Finishing Guide for interior and semi-exterior applications.

Specification Part 1: General

1. **Scope**
   Specify to meet project requirements.

2. **Delivery and Storage of Materials**
   All materials shall be stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the premises. Prior to installation, panels should be stacked flat (unless the contractor in charge of site safety directs otherwise to avoid point overloading of the structure or a tripping hazard) and reasonably protected from the elements.

Warning: Store all Knauf Securock® Glass-Mat Sheathing panels flat. Panels are heavy and can fall over causing serious injury or death. Do not move unless authorised. To ensure safety and performance of the product, the use of a forklift truck with ship minimum 35" (889mm) span between the forks when moving the banded units is recommended. Keep the nylon bands on each lift until individual boards are moved.

Specification Part 2: Products

Knauf Securock® Glass-Mat Sheathing 5/8" (15.9mm) thick, 4' (1220mm) or 1200mm wide, 8' (2440mm) or 2400mm. Other sizes are available. Consult your Knauf sales office or representative for more information.

A. Screws - 1-1/4" (32mm) or 1-5/8" (41mm) #6 bugle head corrosion-resistant fasteners. Where sheet-type, weather-resistive barriers or self-adhering membranes are placed over the sheathing, corrosion resistance shall be equal to or greater than a hot-dipped, galvanised coating of 460g/m^2 of surface area. Where liquid or fluid-applied air and water barriers are used or where no sheet-type, weather-resistive barriers are used over the sheathing, screws shall have a corrosion resistance of more than 1,000 hours per ASTM B117. Stainless steel fasteners shall be used in coastal or aggressive environments. Consult the building code for other requirements.

Specification Part 3: Execution

3. **Wall Sheathing**

B. Apply weather-resistive or water barriers and flashing as required by and in accordance with the applicable local code requirements and the recommendations of the exterior cladding manufacturer, whichever is more stringent.

C. Maximum fastener spacing for vertical surfaces is 8" (203mm) centres, unless limited by wind load restrictions or wood stud racking resistance requirements as outlined in Product Data.

D. Maximum frame spacing is 24" (610mm) centres.

E. Sheathing must be thoroughly dry prior to installing adhesively applied or self-adhered ice/water barriers and joint tape. Failure to do so will result in an insufficient bond to the sheathing.

F. Apply side labeled "Knauf Securock® Glass-Mat Sheathing" towards exterior. Fit ends and edges closely but do not force them together.

G. Fasteners shall be driven flush with the panel surface without countersinking or going deep enough to break the glass-mat and into the framing.

H. Unless otherwise specified or required, Knauf Securock® Glass-Mat Sheathing may be applied either perpendicular or parallel to wood or steel framing.

4. **Soffits Sheathing Application**
   The maximum frame spacing for soffits at 16" (406mm) centres when installed parallel to the joists and 24" (610mm) centres when installed perpendicular to the joists. Maximum fastener spacing for horizontal surface (soffits) is 8" (203mm) centres.

5. **Control Joints**
   Control joints shall be installed at building expansion joints. Location and design of these control joints shall be detailed by the design professional. Per the International Building Code (IBC), the distance between control joints shall not be more than 9m.

6. **Fire Rated Construction**
   Fire rated construction may have additional execution requirements as specified in local building codes.

7. **Weather-resistant Barriers**
   No weather-resistant barrier is required for exposure warranty but may be required by local codes or cladding system specifications.

8. **Exterior Cladding Application**
   Consult exterior cladding manufacturer for installation instructions.

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Knauf Singapore Pte. Ltd.
79 Anson Road #07-01 Singapore 079906
T: (65) 6272 9272 E: contact-us.sg@knauf.com W: www.knauf.com/en-SG/knauf-gypsum

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