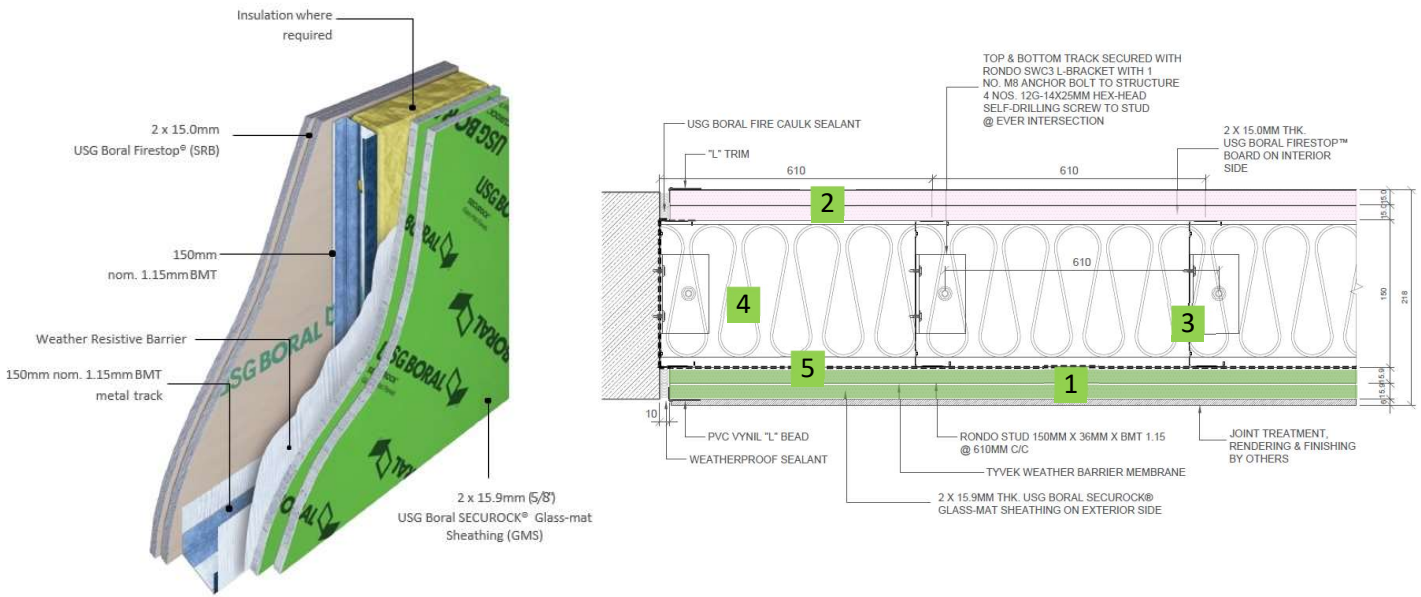


USG BORAL EXTERIOR WALL SECUROCK® GLASS-MAT SHEATHING SGMS – 218 / 150 -1.15- 610/ 120



SMGS 218 / 150 -1.15 – 610/ 120

Width	218mm
Max. Height	3.60 m
Fire Protection	2 hr
Wind Pressure	1.50 kPa
STC with Insulation	52
STC without Insulation	50
U-Value (W/m2.K)	0.26

System Components:

1. GLASS REINFORCED GYPSUM SHEATHING, 2 x 15.9mm **USG BORAL SECUROCK® Glass-mat Sheathing** board installed in the outside layer. Featured with a coated fiberglass mat and treated gypsum core to offer exceptional water resistance and exterior exposure. Mould resistance with a score “10/10” without any defacement when tested in accordance with ASTM D3273. Type H1, less than 5% of water absorption according to BS EN 15283-1. Class A1 non-combustible per EN 13501-1 and BS 476 Part 4, CE Mark Classification EN 15283-1 GM-H1, F. Comply with ASTM C1177, Type X and Glass-mat water-resistant gypsum substrate. Can be exposed to weather for up to 12 months after installation in exterior applications.
Up to 1.50 kPa in accordance with ASTM E330, ASTM E331, and ASTM E283.
2. GYPSUM PLASTERBOARD, 2 x 15.0mm **USG BORAL FIRESTOP™** board installed in the inner layer. Featured with a fire-resistant core specially developed and tested for use in fire rated wall applications. Comply with BS EN 520:2004, non-combustible per BS 475 Part 6 & 7 and tested as system according to BS 476 Part 22.

3. METAL FRAMING, **RONDO™ Steel framing** composed of Lipped wall Stud 150mm x 1.15 BMT thick x 7.5mm Lip, Wall Track 150mm x 32mm x 1.15 BMT, Deflection Head Track 150mm x 50mm x 1.15 BMT with Steel Grade G300, Min. yield strength of 300 MPa, with an anti-corrosion coating of AZ150 (150 g/m² zinc aluminium). The metal framing is spaced at 610mm on centres. The Top and Bottom tracks are secured with RONDO SWC3 L-Bracket with 1 No. M8 Anchor Bolt to the main structure and with 4 NOS. 12 G-14x25mm Hex- Head Self Drilling Screw to Stud at every intersection. The nogging / lateral bracing is required at mid height as minimum, but this could varies depending the project wind load requirements and height of the project.
4. INSULATION MATERIAL LAYER, **150mm rock wool insulation min. nom. 60 kg/m³** (the insulation is optional to increase the thermal, fire and acoustic performance, for further information please contact your local USG Boral Sales representative)
5. WEATHER BARRIER MEMBRANE, **TYVEK StuccoWrap** textured, spunbonded polyolefin, non-woven, non-perforated.

Glass-mat boards should be fixed to the steel framing using USG Boral Self-Drilling Bugle Head Screws with a maximum spacing of 200mm. The exterior wall system should be installed in accordance with GA-253 Application of Gypsum Sheathing, ASTM C 1280 Standard Specification for application of Gypsum Panel products to use as Sheathing, ASTM C 1516 Standard Practice for Application of Direct- Applied Exterior Finish Systems, and USG BORAL Literature and Installation Guidelines.

- Joint Treatment on exterior side: Apply surface adhesion promotor to exterior board joints. Where gaps between boards are greater than 0.50mm apply a flexible sealant or acrylic co-polymer to infill the cavity. Once the product is dried apply a fully embedded 100mm wide strip of 160 g/m² fibre glass reinforcing mesh alkali resistant in combination with an acrylic joint compound.
- Skim coats and Reinforcing Mesh: install a base coat (nominal 3mm) using copolymer based, factory blend of cement or high build acrylic-based plaster in combination with a full fibre glass reinforcing mesh 160 g/m². The mesh must be fully embedded and without wrinkles.
- Primer Coat: apply a 100% acrylic based coating to prepare the surface before the finish.
- Finish Coat: apply a 100% acrylic polymer-based finish, water resistant, Ultraviolet light reflectance, flexible, and durable long-life texture coating. Finish Type, texture and colour should be defined by the Project Designer.

Note: *the joint treatment, skim coating and finish coat installation procedure could varies depending on the selected system manufacturer. Always follow the installation literature and recommendations by the system manufacturer.*

PERFORMANCE CHARACTERISTICS:

- **FIRE RESISTANCE:** 120 minutes (2 Hr) of fire rating estimation according to assessment R20B01-1A Design 1 using 92mm 0.50 BMT Steel Studs issued by Research Engineering Development Façade Consultants Limited in Hong Kong.
- **ACOUSTIC PERFORMANCE:** 52 STC using 150mm rock wool insulation, min. nom. 60 kg/m³ based on acoustic estimations from other test reports and INSUL software.
- **WIND LOAD PERFORMANCE:** Up to 1.50 kPa of wind pressure based on the framing analysis based on BS 5950-5:1988 (Code of practice for design cold formed thin gauge section)
- **THERMAL PERFORMANCE:** Based on the system components and insulation listed above the U-value of the wall system for Thermal Transmittance will be 0.26 W/m².K (For further information please contact your local USG Boral Sales representative)
- **REACTION TO FIRE:** A1 Gypsum board with non-woven mat reinforcement according to EN 15283-1 GM -H1, F /1220 / 2440 / 15.9 / SE
- **SUSTAINABILITY:** Excellent Certificate awarded by the Singapore Green Building Council (SGBC)
- **AIR LEAKAGE:** In compliance with ASTM E283-04 (2012) based on Test Report No. 7191242659-MEC20-LXR_CR1 BY issue by TÜV SÜD PSB in Singapore.
- **STATIC WATER PENETRATION:** No leakage and in compliance with ASTM E331-00 (2016) based on Test Report No. 7191242659-MEC20-LXR_CR1 BY issue by TÜV SÜD PSB in Singapore.
- **CYCLIC WATER PENETRATION:** No leakage and in compliance with ASTM E547-00 (2016) based on Test Report No. 7191242659-MEC20-LXR_CR1 BY issue by TÜV SÜD PSB in Singapore.
- **STRUCTURAL PERFORMANCE:** In compliance with ASTM E330 /330M (2014) based on Test Report No. 7191242659-MEC20-LXR_CR1 BY issue by TÜV SÜD PSB in Singapore.