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SQUAREROCK™ PANEL MINERAL WOOL CORE



NATURAL STRENGTH



THERMAL & ACOUSTIC PERFORMANCE



MINERAL BY NATURE SUSTAINABLE BY DESIGN.



บริษัท สแควร์ พาเนล ซิสเต็ม จำกัด
SQUARE PANEL SYSTEM CO., LTD.

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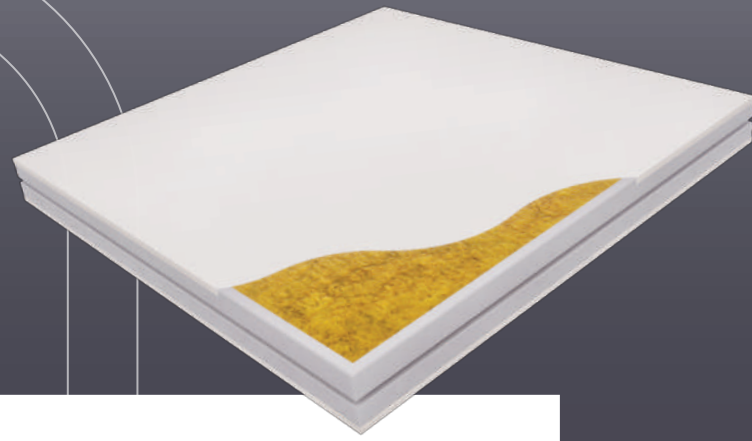
Fire Proof
Non- Combustible



Acoustic
High sound absorption



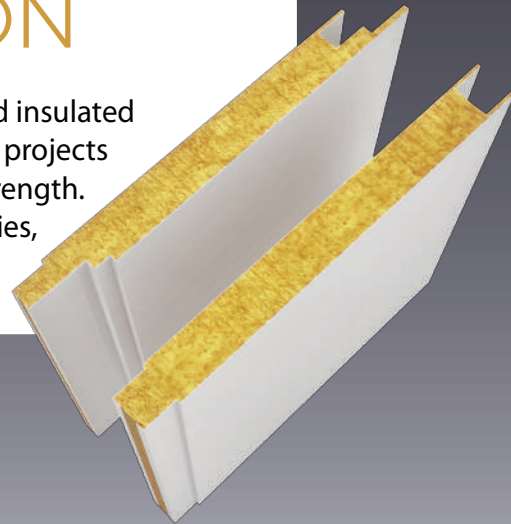
Thermal
Excellent K-values



SQUAREROCK™ Panel

VALUE PROPOSITION

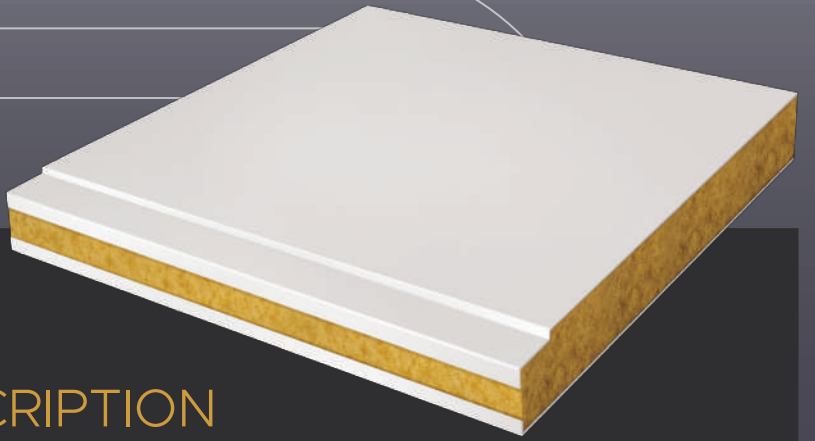
SQUAREROCK™ Panel is a high-performance prefabricated insulated panel using mineral wool core. It is specifically designed for projects that prioritize fire safety, sound insulation, and structural strength. The panel is ideal for industrial buildings, commercial facilities, and areas with high fire risk.



WHY CHOOSE SQUAREROCK™?



-  **Industrial-Grade Strength**
High compression, tensile, and shear strength
-  **Superior Fire Safety**
Non-combustible mineral wool core with melting point exceeding 1,000°C
-  **Certified Fire Resistance Performance**
Tested in accordance with BS 476 Part 20 & 22
-  **Excellent Acoustic Insulation**
Fibrous structure effectively reduces airborne sound
-  **Stable Thermal Performance**
Thermal conductivity $\lambda = 0.036 \text{ W/m}\cdot\text{K}$
-  **Inorganic & Sustainable**
No CFCs, HCFCs, asbestos; resistant to mold, rot, and vermin



PRODUCT DESCRIPTION

SAFE AND RELIABLE NON-COMBUSTIBLE

SQUAREROCK™ Panel consists of a mineral wool insulated core, sandwiched between two layers of pre-painted galvanized steel (PPGI). The inorganic core structure ensures excellent dimensional stability, high structural strength, and superior fire resistance, even under high-temperature conditions.

TECHNICAL PERFORMANCE

PROPERTY	PERFORMANCE	STANDARD
Load-Bearing Capacity of 50 mm. Thick Panel at 2.5 m. Span	150 kg/m ²	EN 14509
Compression Strength of 50 mm. Thick Panel	6,000 kg/m ² ($\approx 60 \text{ kPa}$)	ASTM C365
Thermal Conductivity	0.036 (W/m·K)	ASTM C518
Melting Point of Stone Wool Core	>1,000°C	ASTM E794
Water Vapor Absorption	< 0.04%, by volume	ASTM C1104/C1104M
Water Absorption (Partial Immersion)	< 1.0 kg/m ²	EN 1609

THE NOISE ABSORPTION CO-EFFICIENT FOR ACOUSTIC PANELS, AS TESTED TO BS 3638: 1987

Frequency	125 (Hz)	250 (Hz)	500 (Hz)	1000 (Hz)	2000 (Hz)	4000 (Hz)
Absorption co-efficient (50 mm. Panel)	0.30	0.85	1.00	1.00	0.96	0.84
Absorption co-efficient (100 mm. Panel)	0.70	1.00	1.00	1.00	0.99	0.89
 Sound Absorption Coefficient 1.00 : 100% sound absorption Sound Absorption Coefficient 0.50 : 50% sound absorption Sound Absorption Coefficient 0.00 : No sound absorption						

FIRE SAFETY PERFORMANCE

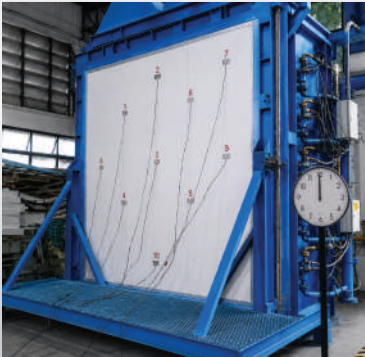
Compliant with relevant fire safety standards (BS 476 Part 20 & 22: 1987)



Fire Testing on Wall 100 mm.



Fire Testing on Wall 50 mm.



Before for Fire Test (a) 0:00 hr

SQUAREROCK™ Panel Before Fire Test

SQUAREROCK™ Panels have been tested under standardized fire resistance conditions using a certified furnace setup. The panels are installed as part of the test assembly, with sensors placed to monitor and measure heat transfer through the panel during exposure to fire. This testing method ensures accurate evaluation of the panel's fire resistance performance and its ability to limit heat transmission under fire conditions.



After for Fire Test (p) 4:00 hr

SQUAREROCK™ Panel After Fire Test

After fire exposure for the specified duration in accordance with BS 476, **SQUAREROCK™** Panels showed no significant structural damage. The panel integrity remained intact, maintaining its original form and structural strength. This demonstrates excellent fire resistance performance and structural stability under high-temperature conditions.

PANEL PROFILE SECRET JOINT SQUAREROCK - SC - 50/100

A premium joint solution that delivers both structural strength and a clean architectural finish. Fully concealed screw joints enhance waterproof performance and accommodate structural expansion, ideal for commercial buildings and industrial facilities.

THICKNESS OF SECRET JOINT PANEL : 50 , 75, 100 mm.



CONCEALED JOINT SYSTEM
Fully concealed screw design for a clean and seamless appearance.

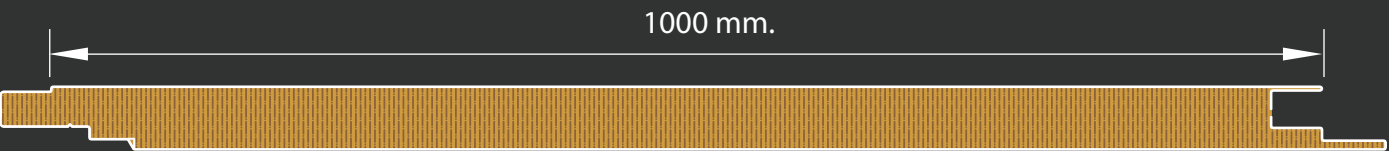


WATERPROOF PERFORMANCE
Engineered joint structure prevents water penetration and enhances durability.



STRUCTURAL STRENGTH
Provides excellent load-bearing capacity and dimensional stability for commercial and industrial applications.

SURFACE MATERIAL : Double-layer high-quality pre-painted galvanized steel (PPGI)



SQUAREROCK - SC - 50/100

PANEL PROFILE

SLIP JOINT

SQUAREROCK - SL - 50/100

The Slip Joint system is designed for fast and efficient installation while delivering a clean, elegant finish and modern aesthetic. Ideal for cleanrooms, laboratories, Office Buildings, or projects that demand a sleek, high-standard appearance.



SURFACE MATERIAL :
Double-layer high-quality pre-painted galvanized steel (PPGI)



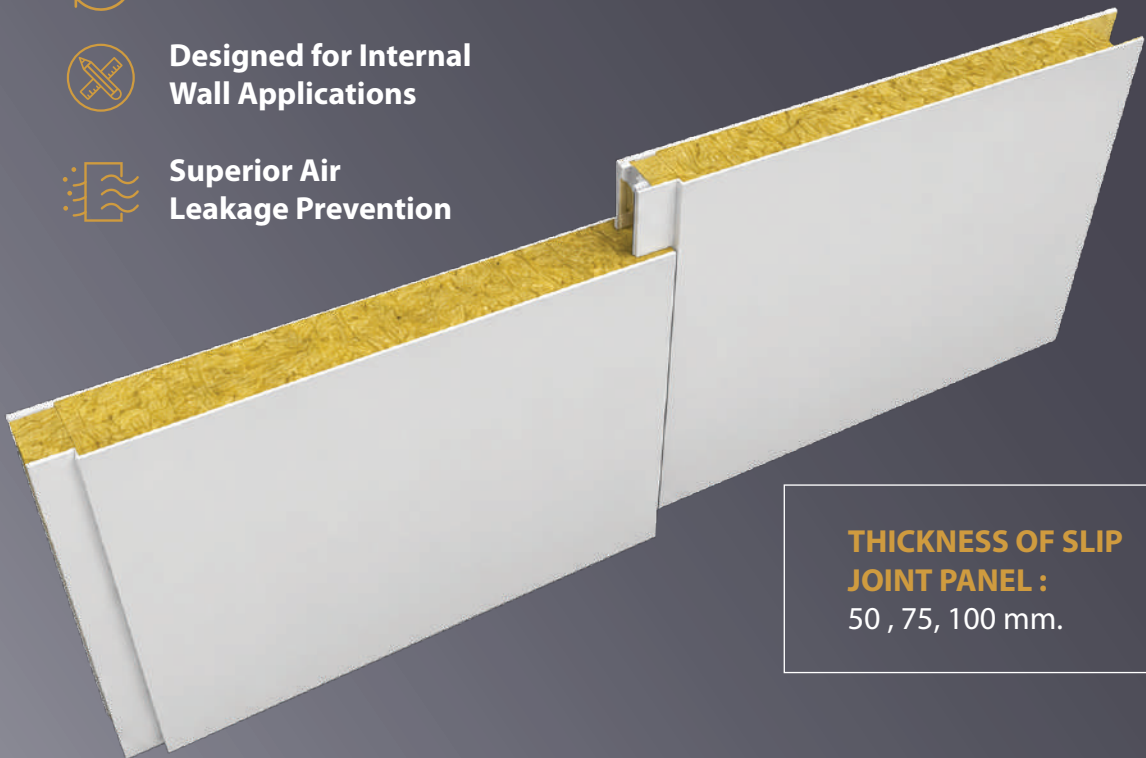
Fast and Easy Installation



Designed for Internal Wall Applications



Superior Air Leakage Prevention



THICKNESS OF SLIP JOINT PANEL :
50 , 75, 100 mm.

1110 mm.

SQUAREROCK - SL - 50/100

PANEL PROFILE

FRAME JOINT

SQUAREROCK - CR - 50/100

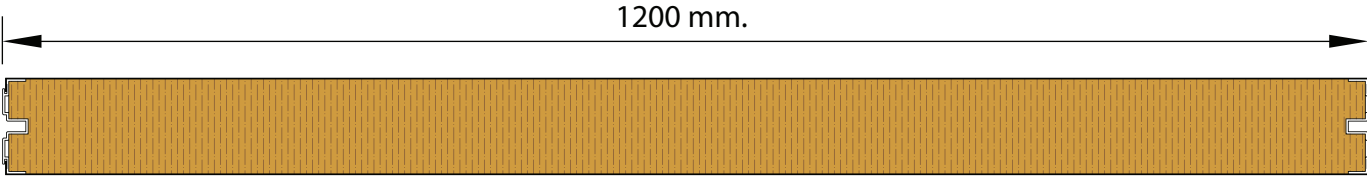
The Frame Joint System is specifically designed for high-standard cleanroom applications. It incorporates a galvanized steel frame structure on all four sides of the panel (with no exposure of core materials) to securely lock the panel joints in place, ensuring a neat and tight finish that complies with cleanroom cleanliness standards.

This system enables fast and highly precise installation. It also allows individual panels to be removed or replaced without affecting adjacent panels, making it ideal for applications that require flexibility for maintenance and future modifications.



SURFACE MATERIAL :
Double-layer high-quality pre-painted galvanized steel (PPGI)

1200 mm.



SQUAREROCK - CR - 50/100

THICKNESS OF FRAME JOINT PANEL :
50 , 75, 100 mm.



Easy Panel Removal Without Affecting Adjacent Panels



Engineered for High-Grade Cleanroom Environments



Fully Concealed Core Material for Superior Hygiene