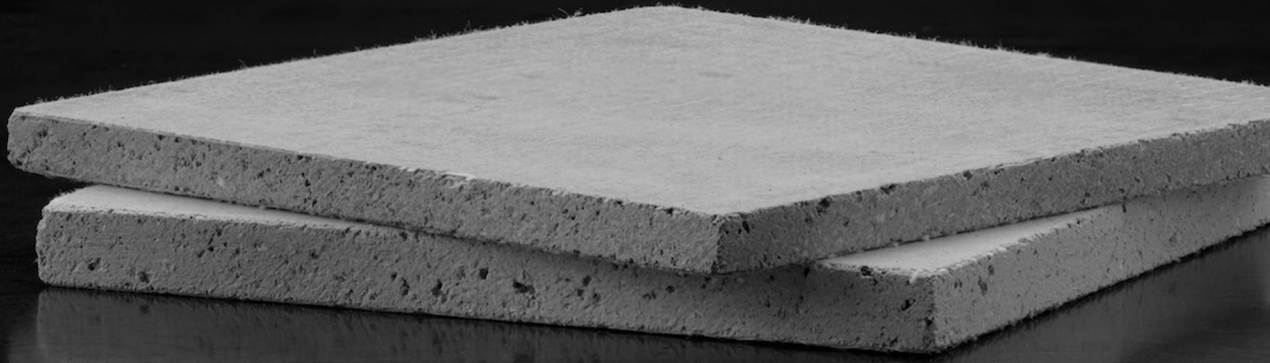


TECHNICAL DATASHEET



CEM-ROCK® EXTREME

www.cemrock.ie



Marketed By

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Manufactured By

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Manufacturing Unit: No. 88, Yao Chi Road, Hai'an Industrial Zone, Nantong, Jiangsu, 226001, China.

Description

Cem-Rock® Extreme is a new age multi-purpose magnesium oxide board which comes in grey color. These boards are highly durable non-combustible board for use in applications requiring a combination of moisture and thermal resistance as well as superior performance in fire. The board will not rot and can be used as an alternative to fiber cement board, where greater dimensional stability is required.

It is an ideal substrate for exterior walls, interior partitions, tile backing for wet and humid areas, floor underlayment, fire rated door core, internal and external ceiling, soffit, structural insulated panels and exterior finishing systems.

Characteristics

- Strong multi-purpose board
- Non combustible A1 EN13501
- Up to 2 hour fire ratings
- High impact strength
- Racking strength
- Certified with CE, BS EN and ASTM Standards
- Magnesium oxide + Magnesium sulphate formula
- Zero chloride content
- Lighter than fiber cement boards
- Easy to cut, screw and install on steel and timber frames
- Suitable for modular construction
- Environmentally friendly
- Safe

Applications

- Internal Partitions
- Backer Board for the Wet Areas
- External Substrate with EIFS
- Exterior render carrier board

Loading and Unloading Boards

Cem-Rock® Extreme boards are supplied on pallets suitable for fork lift unloading by fork lift. If off-loading by crane and slings is envisaged, care should be taken to avoid damaging the edges of the boards.

All pallets and crates can be safely handled by using a fork lift or hoisting equipment and straps. Steel cables or chains should not be used as they will damage both the pallet and the boards.

Where crates are removed from a box container, care should be taken not to subject crates and pallets to any impact shock, as this could result in cracking of the boards.

Always drive the delivery vehicle as close as possible to where the boards are to be used. When transporting the boards, it is essential to secure the pallets to prevent sliding.

If the boards are subsequently moved around the site, they should be placed on a rigid base suitable for lifting by forklift. Cem-Rock® Extreme boards should always be stored on a rigid base.

Storage

All Cem-Rock® Extreme boards are supplied with a protective plastic sheet wrap. This protection should not be removed until the boards are ready for use.

In general, the following steps should be taken to ensure that the boards remain in good condition during storage. All Cem-Rock® Extreme boards should be stored on covered and dry level ground, away from the working area or mechanical plant.

Pallets should be stored safely on firm level ground. If two or more pallets are stacked, the following guidance as well as local legislation and regulations must be observed. The number of pallets per stack is mainly determined by site conditions such as ground conditions, flatness and load capacity of the ground.

Maximum number of pallets stacked one above the other under warehouse conditions: All boards – maximum 5 pallets, recommended < 4 pallets. All boards must be protected from inclement weather.

Cover protection is essential for stacked boards. All boards must be stored under cover. Complete protection for stacked and covered boards in storage.

Technical properties

Property	Testing Standard	Result
Dimensions (Length x Width x Thickness)	ASTM C1185	1200mm x 2400mm x 12mm
Color (Appearance)	ASTM C1185	Grey
Reaction to fire	EN 13501-1:2013 / ASTM E-84	Class A1 (Non Combustible)
Dimensions tolerance	EN 12467:2012	≤ + 3 mm
Thickness tolerance	EN 12467:2012	≤ + 0.5 mm
Average weight	ASTM C1186-2008	13.25 kg/m ²
Average density	EN 12647	1100 kg/m ³
Bending strength ambient conditions	EN 12467	21.36 N/mm ²
Tensile strength perpendicular to the board	EN 319	0.61 N/mm ²
Bending radius	EN 12647	2.2 m
Modulus of rupture / Flexural resistance (Dry)	EN 12467	20.75 Mpa
Water vapour diffusion coefficient	EN ISO 12572	51 μ
Thermal conductivity	EN ISO 10456	0.317 W/(m K)
Water vapour resistance factor	EN ISO 12572	22 μ
Allowable racking shear	ASTM E72-05	458 plf
Average Nail head pull-out	ASTM D1037	0.85 kN
Average Screw pull out	BS EN 14566: 2008 & A1: 2009	1100 N
Average Screw pull through	BS EN 14566: 2008 & A1: 2009	1216 N
Moisture content (at 90±2°C)	EN 318 / ASTM C 1185 Section 10	8.5 %
Water absorption 24 Hours	ASTM C 473	<10
Freeze/Thaw (cycles)	ASTM C 666	100
Breaking strength	EN 12467	1.53 Mpa
Chloride ion determination	ASTM C 871-11	0.01%
Smoke development index (SDI)	ASTM E84-18, UL 723-10	25 (CLASS A)
Flame development index (FDI)	ASTM E84-18, UL 723-10	0 (CLASS A)
Humidified deflation (Mean mm)	ASTM C473:2017, Clause 14	Nil
Crying test 170 days at Temp 30°C Humidity 94%	BS EN T164176	Pass

Sizes and Packaging

Size (mm)	Thickness (mm)	Horizontal Pallet (no. of boards)	Vertical Pallet (no. of boards)	20ft Container (no. of boards)
1200x2400	06	120	150	1080
1200x2400	09	80	100	720
1200x2400	12	60	75	540
1200x2400	18	40	50	360
1200x2700	06	120	150	1080
1200x2700	09	80	100	720
1200x2700	12	60	75	540
1200x2700	18	40	50	360
1200x3050	06	115	145	520
1200x3050	09	75	95	340
1200x3050	12	55	75	260
1200x3050	18	38	48	172