TECHNICAL DATASHEET

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CEM-ROCK® EXTREME FLOOR

www.floor.cemrock.ie

High Strength | Fire Resistance | Water Resistance | Sound Insulation | Moisture Resistance | Eco-Friendly

Greenspan® System Sales Ireland Ltd.

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Description

Cem-Rock® eXtreme FLOOR boards represents a quantum shift in flooring technology and has been developed to rapidly improve on flooring technology. Its fire, water, mould and mildew resistance properties far outweigh any competing products like plywood or OSB floor sheathing. Cem-Rock® eXtreme FLOOR boards provides a superior flooring solution that is unaffected by environmental exposure during construction.

Cem-Rock® eXtreme FLOOR boards reduces the risk of fire, is not affected by adverse weather conditions, and drastically improves your building's structural performance. Cem-Rock® Extreme Floor are Non-Metal Corrosive, MgO Boards tested for non-chloride non-corrosive content. Cem-Rock® eXtreme FLOOR boards provide second to none MgO Tongue and Groove flooring that are made with high quality composites that are also environmentally friendly and sustainable.

We supply our boards as all-in-one building solution that is fire resistant and can withstand various other extreme climatic conditions. Our goal is to protect homes and properties as well as strengthen building structures from such unpredictable threats. Our tested and approved boards are different to conventional flooring systems they are high impact, termite resistant, all while providing a very low carbon footprint of less than 5%. Cem-Rock® eXtreme FLOOR board for interior and exterior protection allows for a durable solution for all types of flooring and exterior decking.

Applications

- Subfloor
- Suspended Floors
- External Decking
- Floor Underlay

Colour Appearance

- White / Grey

Loading and Unloading Boards

Cem-Rock® eXtreme FLOOR 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 forklift 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 FLOOR boards should always be stored on a rigid base.

Storage

All Cem-Rock® eXtreme FLOOR 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 FLOOR 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.

Sizes and Packaging

Size (mm)	Thickness (mm)	Pallet (Q-ty)
2400x1100	20	48

Available Edges: Square, Z Type, Tongue and Groove

Sizes available on request: 600x1200mm, 600x2400mm, 1200x2700mm

Technical Properties

Property	Testing Standard	Result	
Reaction to fire	EN 13501-1	Class A1 (Non-Combustible)	
Nominal dimensions (length x width x thickness)		2400 x 1100 x 20 mm	
Tolerance on length and width	EN 12467:2012	Length Tolerance: 5mm Width Tolerance: 0.3% Comply with Level I	
Tolerance on thickness	EN 12467:2012	Thickness tolerance: 10% Complies with Level I	
Straightness of edges	EN 12467:2012	Max.: 0.01% Complies with Level I	
Squareness of edges	EN 12467:2012	Max.: 0.2mm/m Complies with Level I	
Average weight	ASTM C1186-2008	22.2 kg/m^2	
Nominal density	EN 12467:2012	1100 - 1200 kg/m3	
Moisture movement	EN 12467:2012	Length direction: 0.11% Width direction: 0.13%	
Water impermeability	EN 12467:2012	No formation of drops of water *	
Water vapour permeability	EN ISO 12572, Condition C	Water vapour resistance value μ: 19.8 *	
Freeze-thaw	EN 12467:2012	Pass (Category B, Ratio RL: 0.95) *	
Heat-rain	EN 12467:2012	Pass (No visible cracks, delamination, warping and bowing or other defects.) *	
Soak-dry	EN 12467:2012	Pass (Category B, Ratio RL: 0.86) *	
Release of dangerous substances	EN 12467:2012	Meet the requirement of EU REACH Regulation SVHC exceeds 0.1% (w/w)	
Asbestos Content	NIOSH 9002:1994	Negative	
Average Screw pull out	BS EN 14566: 2008 & A1: 2009	1,774 N * (Mean)	
Average Screw pull through	BS EN 14566: 2008 & A1: 2009	2,775 N (Mean)	
Moisture content (at 90±2°C)	EN 318 / ASTM C 1185 Section 10	8.5 %	
Chloride ion determination	ASTM C 871-11	0.019 %	
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)	
Crying test – BBA	BS EN T164176	Pass (170 days at Temp 30°C Humidity 94%)	
Mould growth	MOAT 33	Zero growth in 42 days incubation	
Field of use	BS EN 1991-1-1:2002	Category A, B, C1, C2, C4, C5, D1 and D2 applications	
Uniformly Distributed Loading (UDL)	BS EN 1195:1998	qk > 10.14 kN/m^2 on joists @ 600mm c/c max.	
Mean Point Load	BS EN 1195:1998	Fmax = 4.45 kN on joists @ 600mm c/c max.	
Mean Stiffness Value	BS EN 1195:1998	R = 1,810 N/mm on joists @ 600mm c/c max.	
Characteristic Point Load	BS EN 1195:1998	Q_k = 3.68 kN on joists @ 600mm c/c max.	
Fire Resistance Classification for Timber Floor Build-up	BS EN 1365-2 / BS EN 13501-2	REI 45	
Bending Test	BS EN 310:1993	As shown in below table	
		Mean Modulus of Elasticity (N/mm^2)	Mean Bending Strength (N/mm^2)
	Fibrous face, Length	4,350	8.97
	Fibrous face, Width	5,440	4.53
	Non-fibrous face, Length	6,660	11.2
	Non-fibrous face, Width	4,630	11.8

* - values for 12mm thick sheets

Installation

Substrate	Steel joist		Timber joist
Grade	<2.5 mm	<3.5 mm	min. C16
Internal/Semi-exposed	WHX60	TSTF5.5-62-3	WHX60
Internal/Semi-exposed	R-CBS-45062		R-CBS-45062

Note: Engineer must approve a fixing type for all floor installations.

Stainless steel type of the above listed screws must be used in case the project is situated in a coastal location (<1000m from the coastline) for semi-exposed installations or for interior installations, where fixings will be exposed to the element for extended period of time. Please contact Greenspan technical department for details.