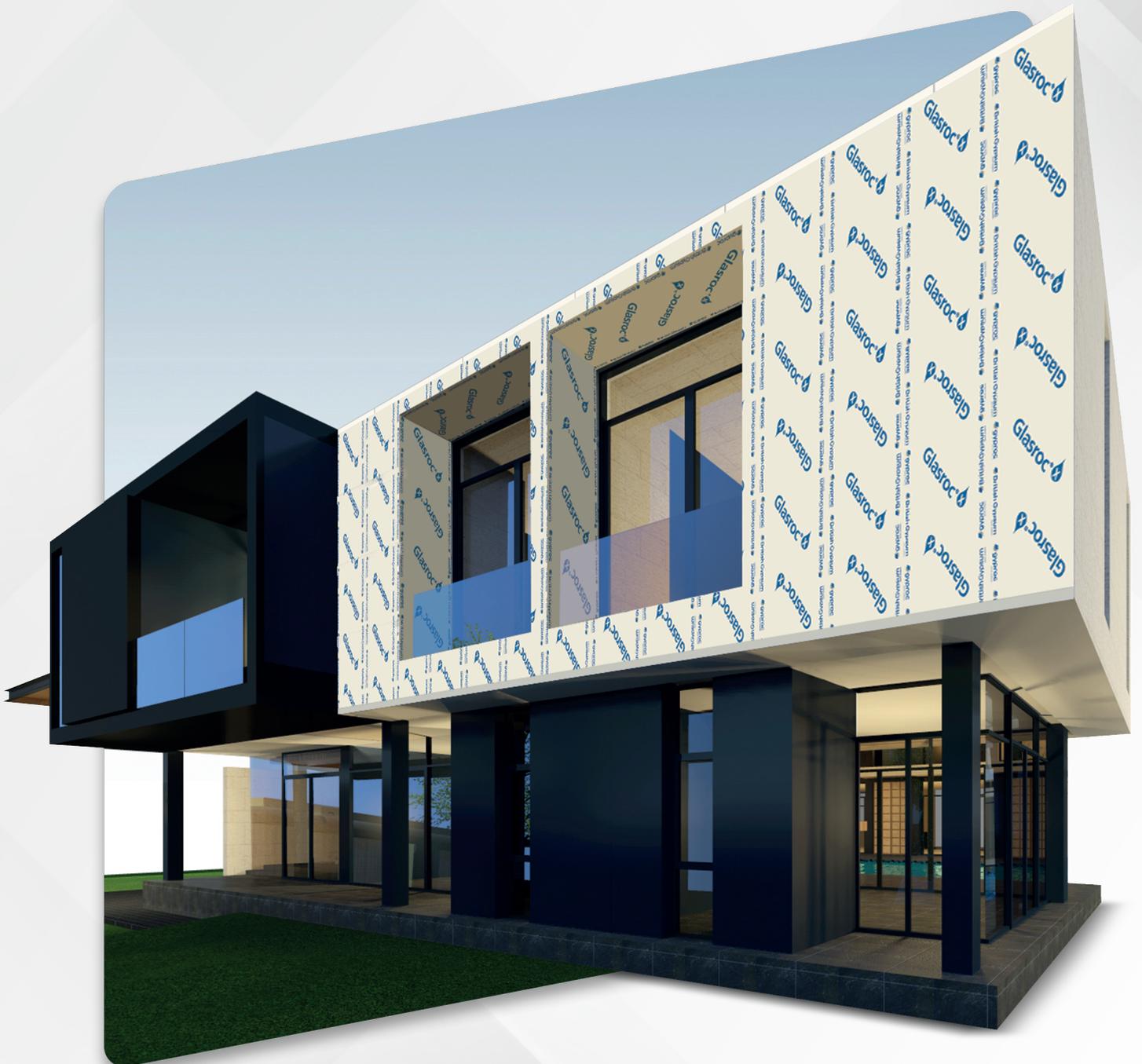


# Glasroc®



**GYPSUM BOARD FOR  
EXTERIOR DRYWALLS**



**EXTERIOR RESILIENCE, REDEFINED**



**GLASROC® X, THE BOARD WITH HIGH RESISTANCE TO MOISTURE AND MOULD, FOR EXTERIOR APPLICATIONS**

# Glasroc® X

Glasroc® X is a high-performance board with a gypsum core containing special additives for moisture and mould resistance. It is a reinforced board with glass mat on both surfaces and a UV-resistant coating, providing outstanding performance in humid environments.

This non-paper faced board is free from cellulose content and therefore has a strong inherent resistance to mould growth. This makes it perfect for wet areas and high-humidity environments, including exterior applications.

Glass mats have a physical anchorage with the gypsum core, ensuring a strong bond that creates a monolithic board of high strength, solidity and exceptional integrity.

Glasroc® X is an ideal substrate for Direct Render application (also known as Direct Apply Systems). It is designed especially for exterior applications and tested against real weather conditions. This high-performance board can be used for areas requiring high protection against water, and is the perfect solution for exterior ceilings, external wall systems and facade cladding systems.

The board is available in the size 1200 x 2400 mm, (other lengths can be available to order depending on quantities required) with longitudinal tapered or squared edges.

Inorganic glass mat surface with strong visual branding for instant product identification and provides a surface that has high resistance to mould and water penetration



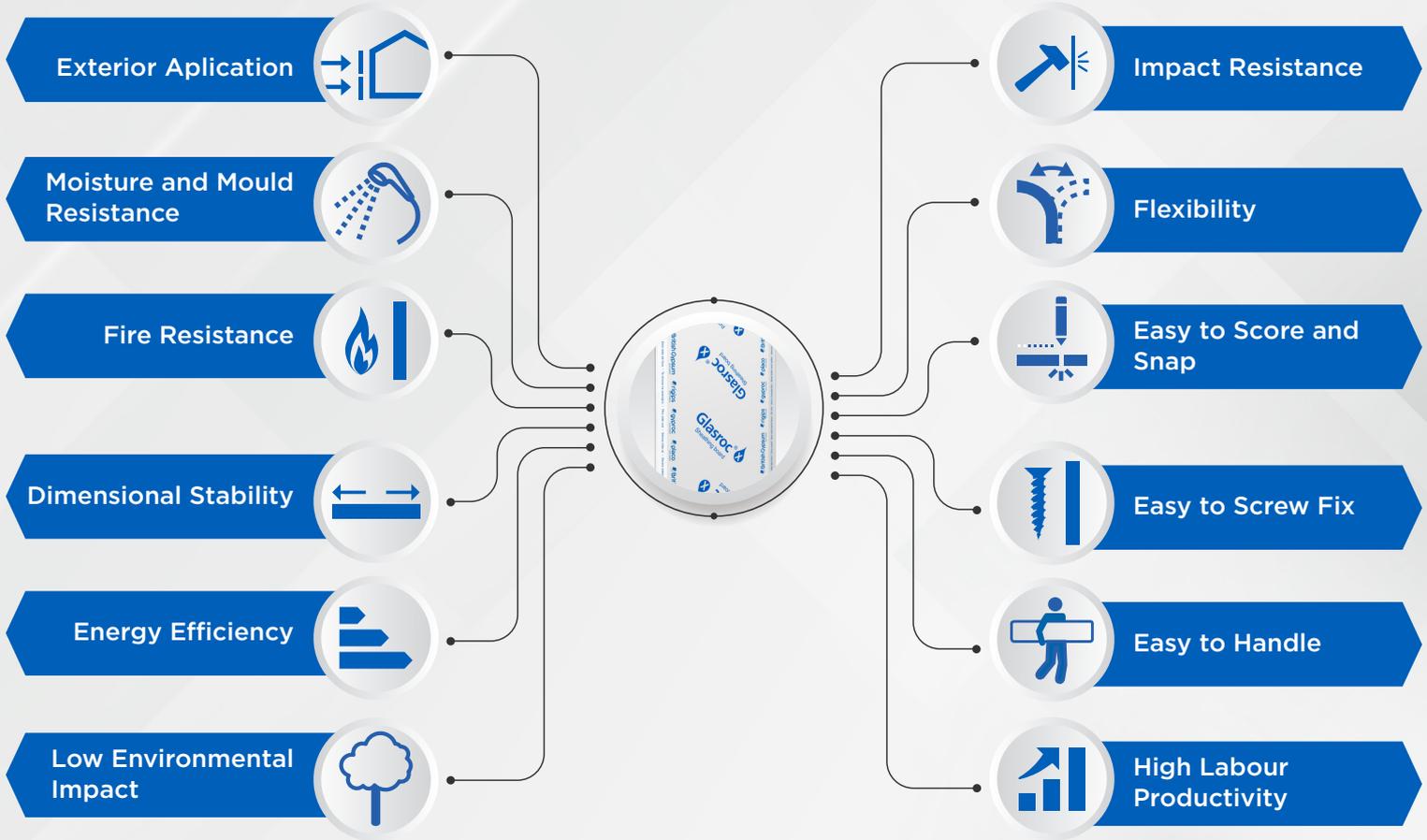
Glass fiber reinforced gypsum core, moisture and mould resistance and very low water absorption.

# BOARD PROPERTIES

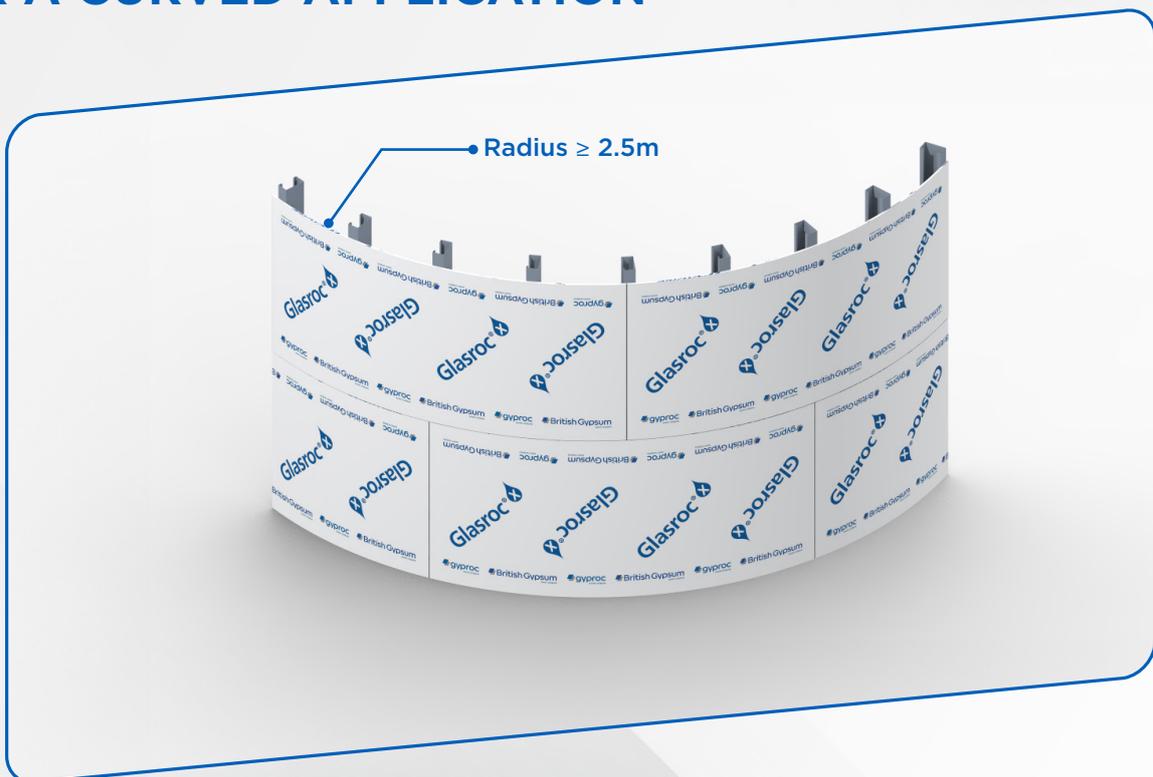
Specification		Value	Unit
Board classification (EN 15283-1)			
Thickness		12.5	mm
Width		1200	mm
Standard length		2400	mm
Weight		11.5-12.2	kg/m <sup>2</sup>
Total water absorption (EN 520)		<5 (H1)	%
Surface water absorption (EN 520)		<90	g/m <sup>2</sup>
Mould resistant (ASTM D3273)		10 (No mould)	Rating
Resistance to UV exposure		12	month
Dimensional stability	Thermal expansion (EN 14581)	$0.8 \times 10^{-5}$	°C <sup>-1</sup>
	Moisture expansion (EN 12467)	0.005	mm/m.1%RH (30-90%RH)
Flexural strength	Longitudinal	≥ 540	N
	Transversal	≥ 210	N
Minimum bending radius		2.5	m
Thermal conductivity λ		0.19	W/mk
Vapour diffusion μ		18.2	-
Fire reaction (EN 13501-1)		A1	-
Termite resistance (ASTM D3345 & IS4833)		9.5	Rating



# PRODUCT FEATURES



## GLASROC® X DRYWALL FOR A CURVED APPLICATION



# APPLICATIONS

**EXTERNAL CEILINGS**  
Semi-exposed ceiling  
areas above balconies



**BALCONIES**  
Wall linings for  
balconies and  
terraces



**FAÇADE**  
Wall linings for  
ventilated or  
non-ventilated  
façades



Glasroc® X has been tested with ETAG verification procedures drawn up by EOTA (European Organisation for Technical Assessment) and harmonised UNE standards for façade and exterior cladding and sheathing applications, while covering the requirements of the EN 15283-1 standard for CE marking, as summarised in the relevant declaration of performance.

**WATER**  
Surface absorption <math><45\text{g}/\text{m}^2</math>  
Total absorption <math><5\%</math>

**WEATHER BEHAVIOR**  
Watertightness: 1400 Pa  
Airtightness: Class A4

**HYGROTHERMAL**  
Hygrothermal behavior  
-20°C to +70°C

**FIRE**  
Reaction to fire A1

**EXTERNAL IMPACTS**  
ETAG 034 Façades  
Category



**EAVES**  
Linings for eaves and soffits

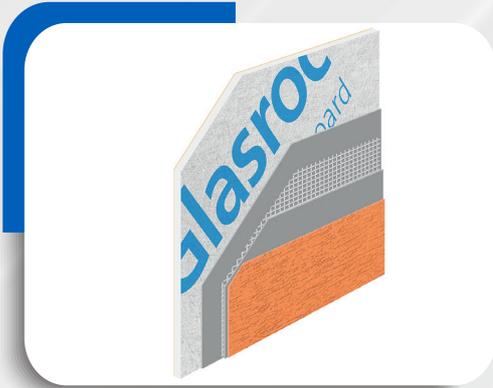


**FASCIAS**  
Façade fronts



**ARCHES**  
Linings to curved surfaces such as arches and columns with minimum bending radius 2.5m

# SURFACE FINISHES



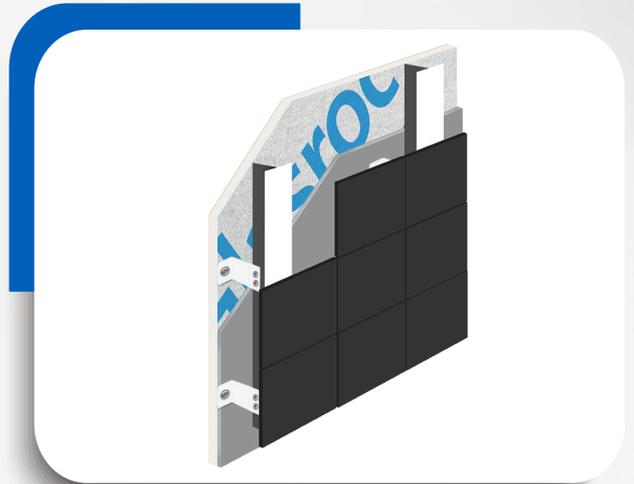
## Direct Render System

Direct Render finishing is used for the construction of external walls in which the board is exposed to the external environment. The render should be a compatible base coat mortar. It must use a reinforcement mesh and an acrylic or siloxane-based topcoat for the finish.

## Stone Cladding



## Aluminium Composite Panels



## High Pressure Laminates



## Paint Finish

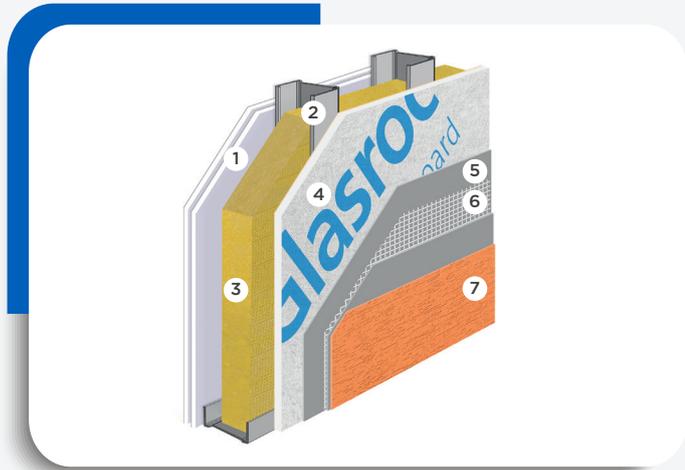


Consultation with Gyproc's technical expert team is recommended for accurate guidance on the installation of finishes. The images provided are solely for representational purposes, and actual installations may vary.

# DRYWALL SYSTEMS WITH GLASROC® X

## EXTERNAL WALL SYSTEMS

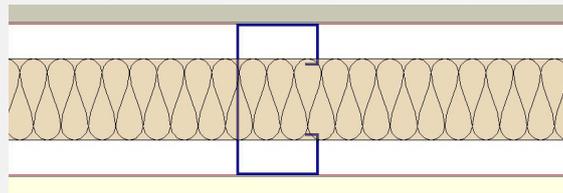
### External Wall with Direct Render System



- |                       |             |
|-----------------------|-------------|
| 1. Internal board (s) | 5. Basecoat |
| 2. Metal framing      | 6. Mesh     |
| 3. Insulation         | 7. Topcoat  |
| 4. Glasroc® X         |             |

Used as an external board for direct rendering on single façade walls.

## GYPWALL CLASSIC



1

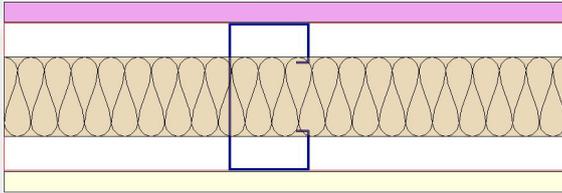
Stud Spacing Considered at 600mm c/c

Sr.No.	System Thickness	Boarding Interior	Boarding Exterior	Stud Size	Max. Height	Acoustic	Weight kg/m <sup>2</sup>	Duty Rating
<b>60 minutes Fire resistance</b>								
1	119 mm	1x12.5 Plain	1x12.5 Glasroc X	92x1.2mm	2900mm	46	29.15	Medium
2	121.5 mm	1x15 Plain	1x12.5 Glasroc X	92x1.2mm	3000mm	47	31.15	Medium
1	147 mm	1x12.5 Plain	1x12.5 Glasroc X	120x0.9mm	3300mm	46	28.32	Medium
2	149.5 mm	1x15 Plain	1x12.5 Glasroc X	120x0.9mm	3400mm	47	30.32	Medium
1	147 mm	1x12.5 Plain	1x12.5 Glasroc X	120x1.2mm	3500mm	46	30.27	Medium
2	149.5 mm	1x15 Plain	1x12.5 Glasroc X	120x1.2mm	3600mm	47	32.27	Medium

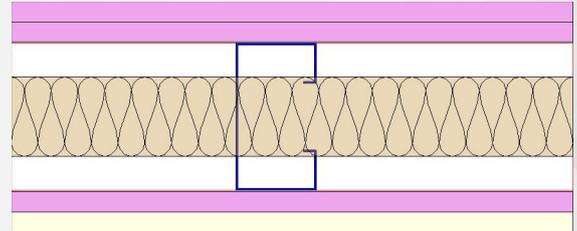
Customized solutions based on performance requirements can be made available as per request.

# DRYWALL SYSTEMS WITH GLASROC® X

## GYPWALL FIRE-RESIST



1



2

Stud Spacing Considered at 600mm c/c

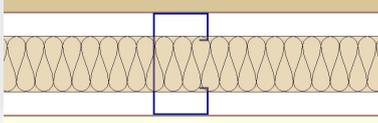
Sr.No.	System Thickness	Boarding Interior	Boarding Exterior	Stud Size	Max. Height	Acoustic	Weight kg/m <sup>2</sup>	Duty Rating
<b>60 minutes Fire resistance</b>								
1	121.5 mm	1x15 FR	1x12.5 Glasroc X	92x1.2 mm	3000 mm	49	31.15	Heavy
1	149.5 mm	1x15 FR	1x12.5 Glasroc X	120x0.9 mm	3400 mm	49	30.32	Heavy
1	149.5 mm	1x15 FR	1x12.5 Glasroc X	120x1.2 mm	3600 mm	49	32.27	Heavy
1	175.5 mm	1x15 FR	1x12.5 Glasroc X	146x0.9 mm	3900 mm	50	31.18	Heavy
1	175.5 mm	1x15 FR	1x12.5 Glasroc X	146x1.2 mm	4200 mm	50	33.32	Heavy
<b>120 minutes Fire resistance</b>								
2	172 mm	2x12.5 FR	2x12.5 (FR + Glasroc X)	120x0.9 mm	3700 mm	54	48.32	Severe
2	179.5 mm	2x15 FR	1x15 + 1x12.5 (FR + Glasroc X)	120x0.9 mm	3800 mm	56	54.32	Severe
2	172 mm	2x12.5 FR	2x12.5 (FR + Glasroc X)	120x1.2 mm	3900 mm	54	50.27	Severe
2	179.5 mm	2x15FR	1x15 + 1x12.5 (FR + Glasroc X)	120x1.2 mm	4000 mm	56	56.27	Severe
2	198 mm	2x12.5 FR	2x12.5 (FR + Glasroc X)	146x0.9 mm	4200 mm	56	49.16	Severe
2	205.5 mm	2x15FR	1x15 + 1x12.5 (FR + Glasroc X)	146x0.9 mm	4300 mm	58	55.16	Severe
2	198 mm	2x12.5 FR	2x12.5 (FR + Glasroc X)	146x1.2 mm	4500 mm	56	51.32	Severe
2	205.5 mm	2x15 FR	1x15 + 1x12.5 (FR + Glasroc X)	146x1.2 mm	4600 mm	58	57.32	Severe

For any Fire resistance requirement above 120 minutes, please contact Gyproc® technical expert teams

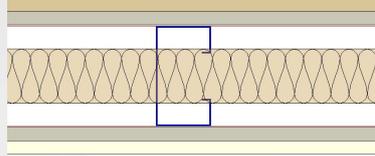
Customized solutions based on performance requirements can be made available as per request.

# DRYWALL SYSTEMS WITH GLASROC® X

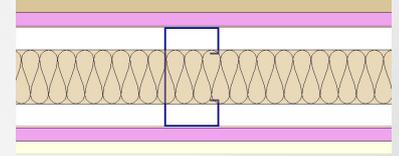
## GYPWALL ROBUST



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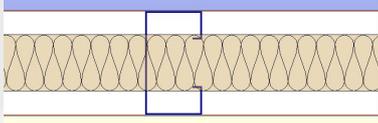
Stud Spacing Considered at 600mm c/c

Sr.No.	System Thickness	Boarding Interior	Boarding Exterior	Stud Size	Max. Height	Acoustic	Weight kg/m <sup>2</sup>	Duty Rating
<b>30 minutes Fire resistance</b>								
1	119 mm	1x12.5 Habito	1x12.5 Glasroc X	92x1.2 mm	2900 mm	46	29.15	Medium
1	147 mm	1x12.5 Habito	1x12.5 Glasroc X	120x0.9 mm	3300 mm	46	28.32	Medium
1	147 mm	1x12.5 Habito	1x12.5 Glasroc X	120x1.2 mm	3500 mm	46	30.27	Medium
1	173 mm	1x12.5 Habito	1x12.5 Glasroc X	146x0.9 mm	3800 mm	46	29.18	Medium
1	173 mm	1x12.5 Habito	1x12.5 Glasroc X	146x1.2 mm	4100 mm	46	31.32	Medium
<b>60 minutes Fire resistance</b>								
2	144 mm	2x12.5 (Habito + Plain)	2x12.5 (Plain + Glasroc X)	92x1.2 mm	3200 mm	54	49.15	Heavy
2	172 mm	2x12.5 (Habito + Plain)	2x12.5 (Plain + Glasroc X)	120x0.9 mm	3700 mm	54	48.32	Heavy
2	172 mm	2x12.5 (Habito + Plain)	2x12.5 (Plain + Glasroc X)	120x1.2 mm	3900 mm	54	50.27	Heavy
2	198 mm	2x12.5 (Habito + Plain)	2x12.5 (Plain + Glasroc X)	146x0.9 mm	4200 mm	55	49.16	Heavy
2	198 mm	2x12.5 (Habito + Plain)	2x12.5 (Plain + Glasroc X)	146x1.2 mm	4500 mm	55	51.32	Heavy
<b>120 minutes Fire resistance</b>								
3	144 mm	2x12.5 (Habito + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	92x1.2 mm	3300 mm	55	55.12	Severe
3	172 mm	2x12.5 (Habito + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x0.9 mm	3800 mm	55	54.32	Severe
3	172 mm	2x12.5 (Habito + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x1.2 mm	4000 mm	55	56.27	Severe
3	198 mm	2x12.5 (Habito + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x0.9 mm	4300 mm	57	55.16	Severe
3	198 mm	2x12.5 (Habito + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x1.2 mm	4600 mm	57	57.32	Severe

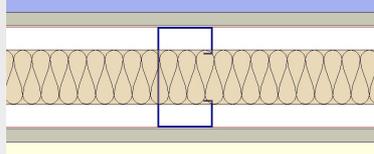
Customized solutions based on performance requirements can be made available as per request.

# DRYWALL SYSTEMS WITH GLASROC® X

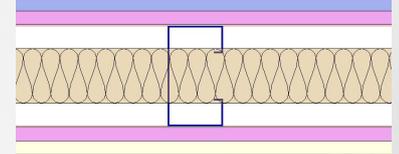
## GYPWALL HYDRO



1



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Stud Spacing Considered at 600mm c/c

Sr.No.	System Thickness	Boarding Interior	Boarding Exterior	Stud Size	Max. Height	Acoustic	Weight kg/m <sup>2</sup>	Duty Rating
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### 30 minutes Fire resistance

1	119 mm	1x12.5 Glasroc H	1x12.5 Glasroc X	92x1.2 mm	2900 mm	46	29.15	Medium
1	147 mm	1x12.5 Glasroc H	1x12.5 Glasroc X	120x0.9 mm	3300 mm	46	28.32	Medium
1	147 mm	1x12.5 Glasroc H	1x12.5 Glasroc X	120x1.2 mm	3500 mm	46	30.27	Medium
1	173 mm	1x12.5 Glasroc H	1x12.5 Glasroc X	146x0.9 mm	3800 mm	46	29.18	Medium
1	173 mm	1x12.5 Glasroc H	1x12.5 Glasroc X	146x1.2 mm	4100 mm	46	31.32	Medium

### 60 minutes Fire resistance

2	144 mm	2x12.5 (Glasroc H + Plain)	2x12.5 (Plain + Glasroc X)	92x1.2 mm	3200 mm	54	49.15	Heavy
2	172 mm	2x12.5 (Glasroc H + Plain)	2x12.5 (Plain + Glasroc X)	120x0.9 mm	3700 mm	54	48.32	Heavy
2	172 mm	2x12.5 (Glasroc H + Plain)	2x12.5 (Plain + Glasroc X)	120x1.2 mm	3900 mm	54	50.27	Heavy
2	198 mm	2x12.5 (Glasroc H + Plain)	2x12.5 (Plain + Glasroc X)	146x0.9 mm	4200 mm	55	49.16	Heavy
2	198 mm	2x12.5 (Glasroc H + Plain)	2x12.5 (Plain + Glasroc X)	146x1.2 mm	4500 mm	55	51.32	Heavy

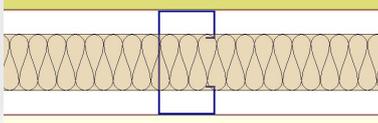
### 120 minutes Fire resistance

3	144 mm	2x12.5 (Glasroc H + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	92x1.2 mm	3300 mm	55	55.12	Severe
3	172 mm	2x12.5 (Glasroc H + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x0.9 mm	3800 mm	55	54.32	Severe
3	172 mm	2x12.5 (Glasroc H + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x1.2 mm	4000 mm	55	56.27	Severe
3	198 mm	2x12.5 (Glasroc H + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x0.9 mm	4300 mm	57	55.16	Severe
3	198 mm	2x12.5 (Glasroc H + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x1.2 mm	4600 mm	57	57.32	Severe

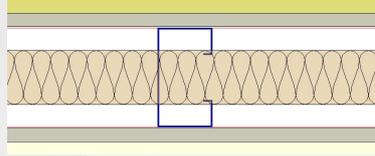
Customized solutions based on performance requirements can be made available as per request.

# DRYWALL SYSTEMS WITH GLASROC® X

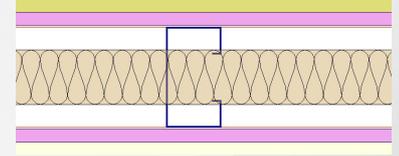
## GYPWALL MULTIPURPOSE



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Stud Spacing Considered at 600mm c/c

Sr.No.	System Thickness	Boarding Interior	Boarding Exterior	Stud Size	Max. Height	Acoustic	Weight kg/m <sup>2</sup>	Duty Rating
--------	------------------	-------------------	-------------------	-----------	-------------	----------	--------------------------	-------------

### 30 minutes Fire resistance

1	119.5 mm	1x13 Rigiroc	1x12.5 Glasroc X	92x1.2 mm	2900 mm	46	29.15	Medium
1	147.5 mm	1x13 Rigiroc	1x12.5 Glasroc X	120x0.9 mm	3300 mm	46	28.32	Medium
1	147.5 mm	1x13 Rigiroc	1x12.5 Glasroc X	120x1.2 mm	3500 mm	46	30.27	Medium
1	173.5 mm	1x13 Rigiroc	1x12.5 Glasroc X	146x0.9 mm	3800 mm	46	29.18	Medium
1	173.5 mm	1x13 Rigiroc	1x12.5 Glasroc X	146x1.2 mm	4100 mm	46	31.32	Medium

### 60 minutes Fire resistance

2	144.5 mm	1x13 + 1x12.5 (Rigiroc + Plain)	2x12.5 (Plain + Glasroc X)	92x1.2 mm	3200 mm	54	49.15	Heavy
2	172.5 mm	1x13 + 1x12.5 (Rigiroc + Plain)	2x12.5 (Plain + Glasroc X)	120x0.9 mm	3700 mm	54	48.32	Heavy
2	172.5 mm	1x13 + 1x12.5 Rigiroc + Plain)	2x12.5 (Plain + Glasroc X)	120x1.2 mm	3900 mm	54	50.27	Heavy
2	198.5 mm	1x13 + 1x12.5 Rigiroc + Plain)	2x12.5 (Plain + Glasroc X)	146x0.9 mm	4200 mm	55	49.16	Heavy
2	198.5 mm	1x13 + 1x12.5 (Rigiroc + Plain)	2x12.5 (Plain + Glasroc X)	146x1.2 mm	4500 mm	55	51.32	Heavy

### 120 minutes Fire resistance

3	144.5 mm	1x13 + 1x12.5 (Rigiroc + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	92x1.2 mm	3300 mm	55	55.12	Severe
3	172.5 mm	1x13 + 1x12.5 (Rigiroc + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x0.9 mm	3800 mm	55	54.32	Severe
3	172.5 mm	1x13 + 1x12.5 (Rigiroc + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	120x1.2 mm	4000 mm	55	56.27	Severe
3	198.5 mm	1x13 + 1x12.5 (Rigiroc + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x0.9 mm	4300 mm	57	55.16	Severe
3	198.5 mm	1x13 + 1x12.5 (Rigiroc + FR)	1x12.5 + 1x12.5 (FR+ Glasroc X)	146x1.2 mm	4600 mm	57	57.32	Severe

Customized solutions based on performance requirements can be made available as per request.



**EXPERIENCE DESIGN FREEDOM WITH  
CONFIDENCE - DISCOVER A VARIETY OF  
SURFACE FINISHES FOR EVERY VISION**

# INSTALLATION GUIDE

## I. INSTALLATION OF GLASROC® X BOARDS

### 01 BOARD

For all exterior applications, boards should be installed vertically starting at least 20 cm from the bottom, or waterproofed first 20 cm, to avoid direct contact with the ground (for interior application, 2 cm from the floor and 1 cm from ceiling) and a joint gap around 3 mm between boards.

Boards should be fixed to metal profiles with a galvanized coating not less than Z275 or to aluminum profiles.

The thickness and spacing of these profiles are calculated in accordance with local regulations to support the self-weight of boards and wind factors, with spacings from 400 - 600 mm centres.

The gap between the vertical joints of two rows of adjacent boards should be no less than 800 mm.

### 02 BOARD FIXING

Boards should be fixed using self-tapping screws appropriate for the board type and thickness of the metal profiles at no greater than 150 mm centres (no less than 10 mm from the board edges).

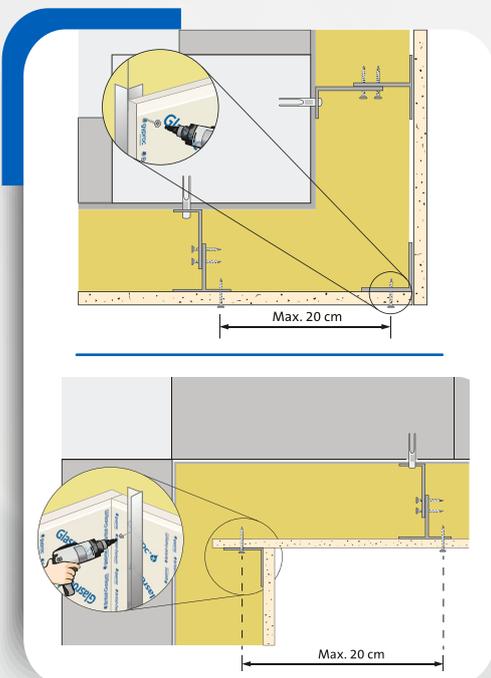
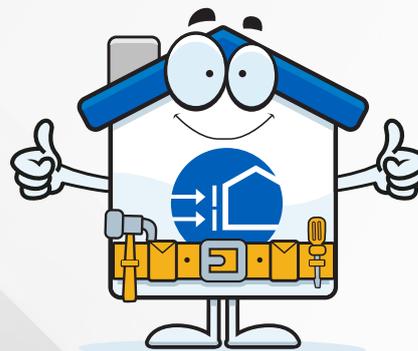
It is recommended to use a stagger pattern of at least 20 mm for the fixings.

Screw heads should finish flush with the board surface without damage to the core.

### 03 CORNER REINFORCEMENT

For inner and outer corners, the board can overlap the last profile by a maximum of 20 cm.

In all cases the edge of the board must be reinforced with an angle profile.

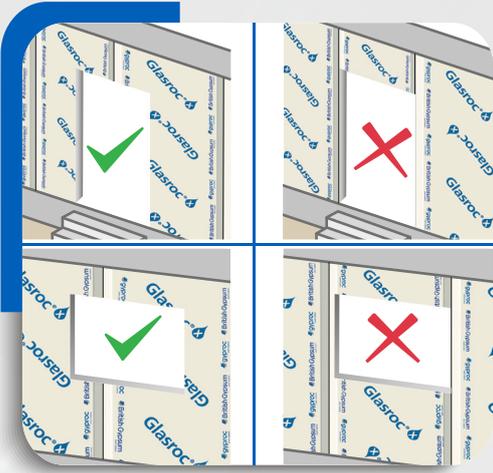


## 04 DOORS AND WINDOWS AREAS

For gap formation for windows and doors, joints between boards may not coincide with the plumb line of lintels, window cases or door jambs, as there should be at least 40cm between vertical joints and 15 cm between horizontal joints.

All joinery work must be fixed to independent frames so as not to transfer loads onto the boards.

In sections used for forming window sills, boards should ensure a slope of at least 10° for water drainage.



## 05 EXPANSION JOINTS

Glasroc® X's high dimensional stability makes it ideal for large continuous façade areas, which are only interrupted every 15 m maximum for vertical joints, in addition to those required by the building's structural joints or for changes in the size of the façade leaves.

Equally possible in these cases are the creation of horizontal joints.

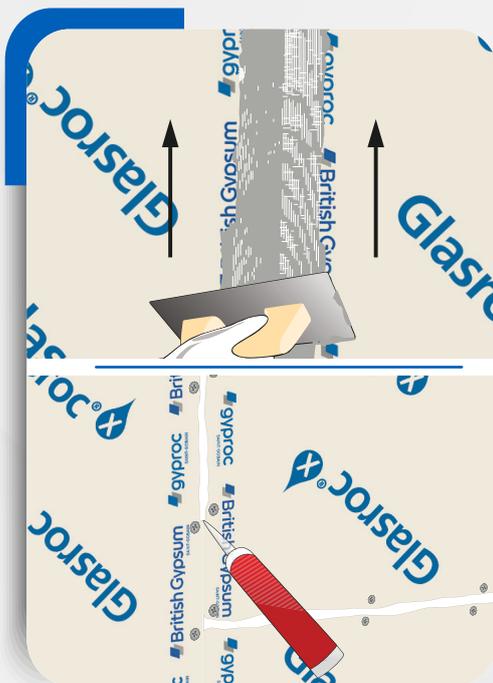


## 06 JOINT TREATMENT

Joint treatment is determined in each case by the type of application of Glasroc® X and surface covering.

When boards are not exposed to the outside (cavity or sidings systems and external walls with cladding systems over), simple sealing with an outdoor mastic or adhesive tape will be sufficient, provided it overlaps joints and connections by at least 10 cm on all sides to ensure continuity of the seal.

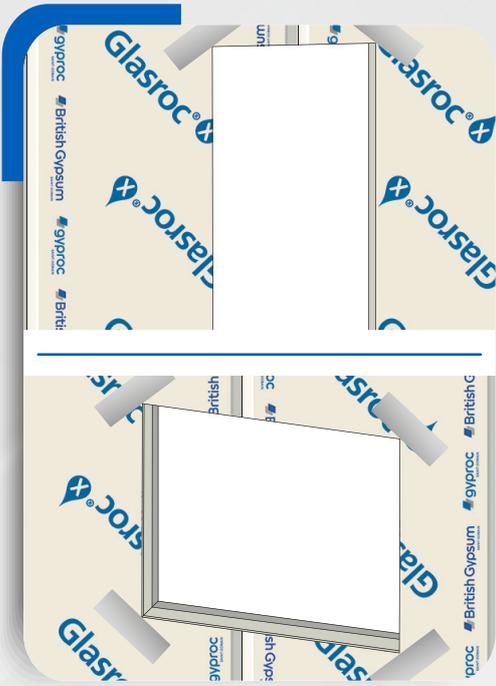
Where boards require a direct finish, a band of not less than 15 cm in width should be applied using the Weberdry Fabric 65 Joint Tape overlapped at least 15 cm.



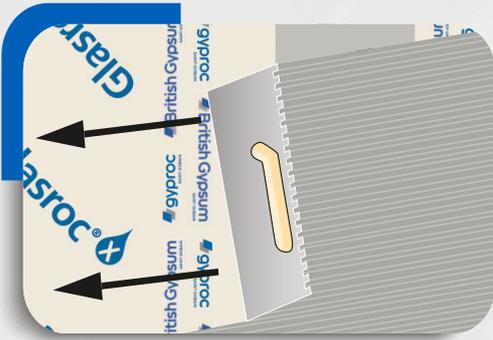
## 07 WINDOW ANGLES AND LINTELS

To prevent the appearance of cracks at angles forming gaps when the boards will be given a direct render coat, diagonal bands measuring 20 x 40 cm minimum of Weberdry Fabric 65 Joint Tape should be placed.

Similarly, the edges of these gaps should be reinforced with ancillary PVC profiles for corners and drip-proofing.



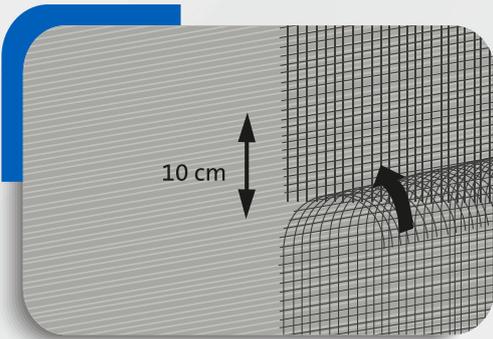
## II. SURFACE COVERING SOLUTIONS "DIRECT RENDER" FINISHING



### 08A BASECOAT

The application of compatible render, such as Weberwall BaseCoat must be carried out after joint treatment.

A first coat of about 2 mm in thickness is applied over the whole surface.

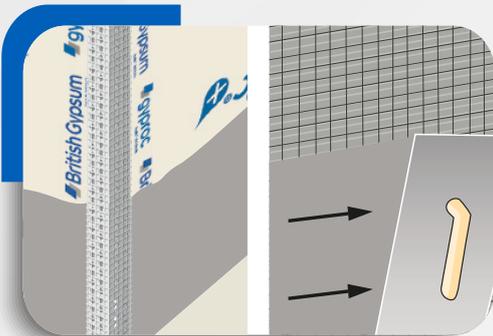


### 09A MESH

Over the fresh coat of rendering, Gyproc Glass Fiber Mesh should be applied to ensure an overlap of at least 10 cms.

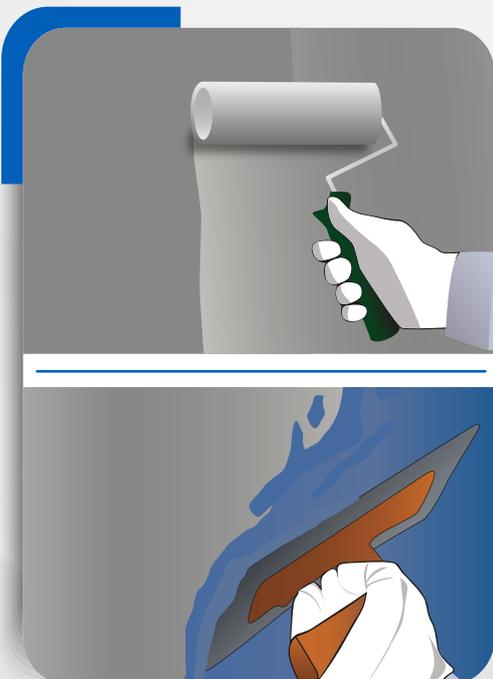
The mesh must be completely covered by the render using the appropriate trowel.

Similarly, when other ancillary profiles as required by the façade design are applied, such as corner reinforcements, lintel drip-proofing, vertical and horizontal joints, or clip-type base or top profiles, these must be fully covered by the render.



### 10A BASECOAT, SECOND LAYER

A second coat is then applied to cover the entire surface with a total thickness of 3 to 5 mm, smooth and ready for the application of finishes or topcoats.



### 11A TOPCOAT

After the appropriate drying time of the first render coat (usually around 48 hrs), an acrylic or siloxane-base topcoat such as Weberwall Finish TopCoat may be applied for giving final finishing.



**BUILDING THE FUTURE OF NEARLY  
ZERO ENERGY BUILDINGS WITH LIGHT &  
SUSTAINABLE CONSTRUCTION  
TECHNOLOGY**

# COMPONENTS



**Unfinished Board**



**Direct Render system**

## BOARD

Glasroc® X is a reinforced gypsum board with high impact resistance and UV ray resistance. Specially designed for external applications.



## SCREWS

Screws with corrosion protection for galvanised profiles or stainless steel screws for aluminium profiles.

## BASECOAT

Ready-to-use high performance undercoat paste suitable for direct finishes and application.



## 160 MESH TAPE

Fibreglass mesh tape combined with anti-alkali surface treatments for reinforcement of joints over render.

## 160 MESH

Roll of fibreglass mesh combined with anti-alkali surface treatments for reinforcement of undercoat surfaces over Glasroc® X boards.



## TOPCOAT

Fine-layer acrylic surface covering for weatherproofing, decoration and long-lasting protection of exterior walls and ceilings.

 Bangkok Boulevard  
Clubhouse, Thailand



 Bangkok Boulevard  
Clubhouse, Thailand



 UAE Pavillion



 House Arrecife,  
Lanzarote





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