

## What is Aquafire?

Quietstone AQUAFIRE® is a fibre-reinforced lightweight cement board. AQUAFIRE® is extremely lightweight, non-combustible (class A1), highly insulating, water resistant and is the easiest board to cut on the market. It can be used for indoor or outdoor applications. It does not decay, deform, flake or crumble and it does not deteriorate in the presence of water. AQUAFIRE® is an exceptional and resistant support for the application of ceramic tiles, glass mosaics brick coverings or any other type of covering.

## Why use Aquafire?



WATER RESISTANT



FIRE RESISTANT & TOTALLY NON COMBUSTIBLE. CERTIFIED UP TO 240 MINUTES



FAST INSTALL & EASY SCREW BOARDS



GREAT INSULATION (W/mK at 20°C = 0.20)



FLEXIBLE - 2m RADIUS (AS BOARD) & 90cm (AS STRIPS)



EASIER TO CUT, LIKE PLASTERBOARD



MAX. DIMENSIONAL STABILITY IN WET ENVIRONMENTS



SUITABLE FOR MARINE EQUIPMENT



LIGHT WEIGHT - 17% LIGHTER (12kg/m<sup>2</sup>)



MADE IN THE EU



HIGHER RESISTENCE TO SOFT BODY & HARD BODY IMPACT; PULL-THROUGH AND SHEAR LOADING



Surface Texture

## Where to use

INTERIOR WALLS | INDOOR UPGRADING | CURTAIN WALLS FOR OUTDOORS | EXTERNAL FASCADÉ COVERING  
EXTERNAL CLADDING | VENTALATED FASCADÉS | CEILINGS | FLOORS | OUTDOOR CEILINGS



*External Facades*



*Roofs*



*Fountains*



*Curved Surfaces*



*Humid Environments*



*Swimming Pools*



*Saunas*



*Fireplaces*



*Laundry*



*Showers*



*Garages*



*External surfaces*



*Tiled Floors*



*Dry Floors*



*Fireproof Partitions*

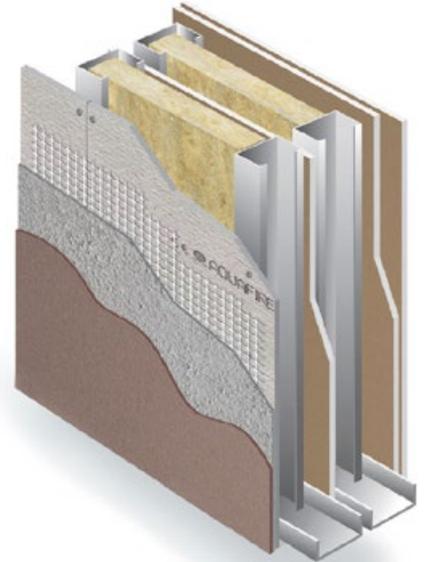


*High Temperature Environments*

## How to install

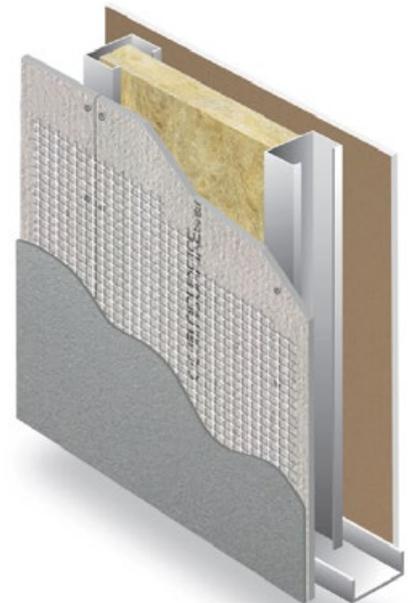
### Outdoor

1. The boards need installing on a suitable metallic frame depending on whether the installation is on walls, linings walls, ceiling or ventilated façade.
2. We recommend using metallic profiles in compliance with the UNI EN standard with a 10mm thickness. The frame work material must be greater or equal to 200 gr/m<sup>2</sup>.
3. Arrange the frames with gaps no greater than 40cm between bars.
4. Aquafire® boards must be installed perpendicular to the metallic frame with the cut side exposed. The joints must be staggered as in any normal dry covering application.
5. Leave a 3-4 mm gap between each board.
6. Keep the sheets off the ground (12 - 12.5mm) with the help of a scrap of sheet (which should then be removed) to prevent the possibility of moisture, salts or impurities at ground level soaking in, and to allow the normal expansion of the materials.
7. Fix Aquafire® boards with screws (Aquafire® Star), screwing at 20cm intervals (15cm for horizontal applications); leaving 15 mm from the edge of the board.
8. Install an expansion joint every 12 linear metres, both in the horizontal and vertical direction.
9. If a traditional finish is required, spread a layer of Rasante Aquafire® on the entire surface of the boards with a notched trowel, making sure to penetrate the coating inside the joints between boards.
10. Embed the Rete Aquafire® mesh in the cement coat which has just been spread, taking care to hide it completely, working with the smooth side of the trowel. Mesh joints need overlapping by 100mm, following the premarked line.
11. The final thickness of this coating must be 3mm.
12. Complete the surface with a finishing plaster like acrylic plaster, acrylic-siloxane or siloxane.



### Indoor

1. The boards need installing on a suitable metallic frame depending on whether the installation is on walls, linings walls or ceiling.
2. We recommend using metallic profiles in compliance with the UNI EN standard with 6/10mm thickness.
3. Arrange the frames with gaps no greater than 60cm between bars.
4. Aquafire® boards must be installed to the metallic frame with the cut side exposed. The joints must be staggered as in any normal dry covering application.
5. Leave a 3-4 mm gap between each board.
6. Keep the sheets off the ground (12 - 12.5mm) with the help of a scrap of sheet (which should then be removed) to prevent the possibility of moisture, salts or impurities at ground level soaking in, and to allow the normal expansion of the materials.
7. Fix Aquafire® boards with screws (Aquafire® Star), screwing at 25cm intervals (15cm for horizontal applications); leaving 15 mm from the edge of the board.
8. Install an expansion joint every 12 linear metres, both in the horizontal and vertical direction.
9. If a traditional finish is required, spread a layer of the finishing plaster on the entire surface of the boards with a notched trowel, making sure to penetrate the coating inside the joints between boards.
10. Smooth the surface, embedding the Rete Aquafire® mesh in the coating, which has just been spread, taking care to hide it completely, working with the smooth side of the trowel. Mesh joints need overlapping by 100mm, following the premarked line.
11. Once dry the wall is ready for painting.



### Curved surface

For curved surfaces you can use whole Aquafire® boards to create curves up to a minimum radius of 2 metres. For curves between 2m and 90cm, use 30cm width strips of board, screwing them with Screws Aquafire® Star at intervals of 10cm.

GEOMETRIC CHARACTERISTICS			
Description	Units	Value	Tolerance
Dry Density	(kg/m <sup>3</sup> )	960	± 15%
Weight	(kg/m <sup>2</sup> )	12	± 15%
Width	(mm)	1200	± 3.6mm
Length	(mm)	2000	± 5mm
Thickness	(mm)	12.5	± 1.2mm
Reaction to Fire	-	A1 - Non-combustible Non-combustible for marine equipment	-

GEOMETRIC CHARACTERISTICS		
Description	Units	Value
Fire resistance	(min)	240
Bending resistance MoR (in wet condition)	(MPa)	5.8
Modulus of elasticity MoE (in wet condition)	(MPa)	1043
Radius of curvature whole board	(m)	2.0
Radius of curvature whole 30cm	(m)	0.9
Thermal conductivity at 10°C	(W/m °K)	0.20
Thermal conductivity at 20°C	(W/m °K)	0.20
Water vapour diffusion	(μ)	31
Shear load resistance of mech. fasteners (vita Aquafire star)	(N)	840
Pull-through resistance of mech. fasteners (vita Aquafire star)	(N)	803
Resistance to eccentric vertical load (shelf with anchors)	(kg)	30
Resistance to soft body impact (50kg)	(J)	400
Resistance to hard body impact (500g)	(J)	>6
Tensile strength perpendicular to the plane	(MPa)	0.99
Tensile strength parallel with the plane	(MPa)	1.05
Water absorption	(%)	<10
Linear variation in humid ambient	(mm/m)	0.39
Compressive strenght	(MPa)	>6.7
Linear thermal expansion	(mm/°C m)	0.013
pH	(-)	12
Resistance to bacteria	(-)	0 (no growth)
Fungal resistance	(-)	0 (no growth)
TVOC	μg/m <sup>3</sup>	77