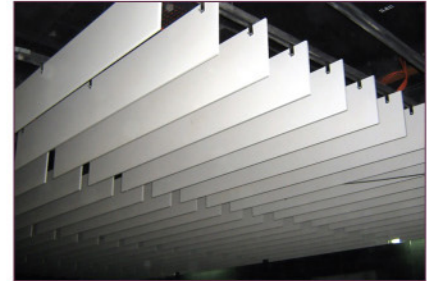


Introduction

WeatherPro®-S is a flat external grade, high quality building board for heavy-duty commercial and industrial use, such as train station or airport. The board is made of non-combustible raw materials and has undergone an extremely high pressure pressing process, thus making WeatherPro®-S inborn with good strength and good resistance to impact. It is designed for the use of external applications or internal applications where high resistance to impact damage and weather resistance is required. It is economical and durable when comparing with pre-cast concrete wall panels, concrete block walls and cement - bonded particle boards for similar applications. The board is manufactured to ISO 9001 quality management system and ISO14001 environmental management system, and has obtained the Green Product Label Award issued by National Environment Protection Bureau.



Hanging baffles at MTR Station, Singapore

Description



WeatherPro®-S is a highly compressed high density calcium silicate board reinforced with selected fibres (alias named as compressed high density fibre cement board in North America). It is formulated without asbestos, sepiolite, formaldehyde or other inorganic fibre. Its manufacturing process is pollution-free and hence the product is a green construction material. WeatherPro®-S composes of calcium silicate matrix, reinforced fibres and synthetic cement silicate binder. It has undergone a high pressure pressing process together with an autoclave process where steam under high pressure is injected for curing. The synthetic cement silicate binder provides exceptional dimensional stability and an unrivalled resistance to movement due to effects of moisture or heat. The board will not rot or support fungal growth and is unaffected by sunlight or steam. The board does not contain any soluble ingredients or free alkali which could be dissolved out by moisture or condensation causing unsightly marks. The board is watertight and fully weather resistance and its performance will not degrade in its lifetime when properly installed. WeatherPro®-S is light grey in color and has smooth surface on both sides. It can be left undecorated or can be easily decorated with paints or other external applied finish, alkali-resisting primer are not required. WeatherPro®-S can be used as furring or left-in formwork for reinforced concrete construction or as a permanent lining board for metal cladding. The unique characteristic of high density autoclaved calcium silicate means that WeatherPro®-S is by itself moisture tolerant, it is tough, durable and resistance to impact damage and is commonly used in areas where permanent damp or high humidity are anticipated such as ferry and train stations, machine rooms, food factories or external locations.



Sizes

Thicknesses	6 / 9 / 12 / 15mm
Widths	900 / 1200 / 1220mm
Lengths	1800 / 2400 / 2440 / 3000 / 3050mm

Note: Other sizes are also available and can be produced to special order.

Manufacturing Tolerances

Length tolerance	+/- 5mm
Width tolerance	+/- 5mm
Thickness tolerance	+/- 0.3mm
Diagonal tolerance	+/- 5mm



Performance

Density	1700 kg/m ³ +/-6%
Surface Alkalinity	PH 7-10
Flexural strength (along grain)	18 N/mm ²
Flexural strength (across grain)	25 N/mm ²
Moisture movement (from ambient to saturated)	1.6~1.8 mm/m
Non-combustibility	BS476: Part 4
Resistance to continuous heating	80°C
Moisture content	Ex works- 10~15% In situ- 6~7%
Coefficient of thermal expansion (-20~+80°C)	1.0 x 10 ⁻⁵ m/m.k
Coefficient of thermal Conductivity	0.30 W/m.k
Non-permeability	No leakage after 6 hours of continuous water spray at 0.5litre/minute under 250Pa pressure
Freezing and Thawing test	No damage or de-lamination after 25 cycles of freezing / thawing



Specific Properties



Acoustic insulation



High impact resistance



Decorative finishes by tiles, paint or wash granolithic



Non-combustible
BS 476 : Part 4



Easy to use



Resistance to attack
by insects or vermin



Excellent dimensional stability



Resistance to mould
or fungal growth



Good chemical resistance



Weather resistance



Sunscreen application



Flooring application

Application

WeatherPro®-S is used in a wide range of external and general purposes for building applications in domestic, commercial, industrial and agricultural including:

- Impact resistant fence walls
- Heavy duty wall fascia / cladding
- Floor decking
- Encasement to steelworks
- Fascias and shop fronts
- Sun-shades
- Weatherboardings
- Motifs
- Verge under cloaking
- Claddings in tunnel
- Service enclosures
- Noise barriers at highway
- Left-in formworks



Heavy duty steel stud wall in workshop

Health & Safety

WeatherPro®-S is formulated without asbestos or sepiolite or any inorganic fibres. When using power saws or sanders in a confined space, dust extraction equipment is recommended to control dust levels. WeatherPro®-S is designed for non-load bearing construction. Horizontal boards or ceiling panels must not be walked on as they are not designed to take additional loads between supports; if there is a risk of this occurring, warning notices should be displayed. Fixers must ensure that they work from adequate and safe platforms where necessary.