

Introduction

WeatherPro®-CP is a flat external grade high quality façade fibre cement reinforced calcium silicate board. It is made of non-combustible raw materials and has undergone an extremely high pressure pressing process, thus making WeatherPro®-CP a dense building board and inborn with good strength and good resistance to impact. It is designed for use in external building facades applications where high resistance to impact damage and weather resistance is required. WeatherPro®-CP is economical and durable when compared with traditional concrete panel wall, cement-bonded particle board for similar applications. A wide range of decorative finishes can be used, from site-applied acrylic textures, to available factory-applied polyurethane plain colours and metallic finishes. WeatherPro®-CP can be left un-painted. Its special performance of exemplary strength and durability prevents water or moisture penetration, a reliable substrate to receive heavy decorative finishes. 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.



Description

WeatherPro®-CP is a highly compressed, high density fibre cement reinforced calcium silicate board (alias as compressed, high density fibre cement board). It is formulated without asbestos or sepiolite or any other man made fibre. Its manufacturing process is pollution-free and hence the product is an environmentally friendly building material. WeatherPro®-CP is comprised of calcium silicate matrix, selected reinforced fibres and synthetic cement silicate binder. It has undergone a high pressure pressing process together with an autoclaving process inside a curing chamber where superheat steam under high pressure is injected for curing, as a result, enhancing high strength and durability of board that is capable of heavy duty usage. The synthetic cement silicate binder provides exceptional dimensional stability and an unrivalled resistance to movement due to effects of moisture or heat. WeatherPro®-CP 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. It is watertight and fully weather resistant and its performance will not degrade in its lifetime when properly installed, WeatherPro®-CP is naturally light grey in color and has smooth surfaces on both sides. It can be left undecorated or can be easily decorated with paint finishes, alkali-resisting primer is not required. WeatherPro®-CP can be used as wall furring or left-in

formwork for reinforced concrete construction or as a permanent exterior wall panel installed at high rise building. The unique characteristic of compressed high density autoclaved fibre cement reinforced calcium silicate means that WeatherPro®-CP is by itself moisture tolerant. It is tough, durable and resistance to impact damage. It is ideally used in areas where permanent damp or high humidity are anticipated, such as food processing plants 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

WeatherPro®-CP is fully tested to the latest European Standards for long durability. It is a CE marked and green labeled building product.

Performance

Undecorated building façade



Physical Properties		
Apparent Density	BS EN 12467	1550 kg/m ³ +/-5%
Nominal Weight	Ambient	10.30 kg/m ² – 6mm 15.40 kg/m ² – 9mm 18.60 kg/m ² – 12mm
Surface alkalinity	In-house	pH 7-11
Flexural strength (along grain)	BS EN 12467	14.00 MPa
Flexural strength (across grain)	BS EN 12467	21.00 MPa
Bending Modulus	BS EN 12467	13000 MPa
Moisture content	By weight	Ex works - 15% In situ - 7 %
Water adsorption	By weight	< 25%, after 48 hours of immersion
Dimensional changes in length due to relative humidity	BS EN 318	+ 0.02% @20°C, RH 30%>85% - 0.02% @20°C, RH 85%>30%
Thermal conductivity	EN 12664	0.30 W/mK
Fire Performance		
Resistance to continuous heating	In-house	80°C
Non-combustibility	BS EN ISO 1182 BS476: Part 4	Pass
Heat of combustion	BS EN ISO 1716	Pass
European Building Classification	EN 13501	Euro Class A1 & A1Fl
Durability & Aging Performance		
Durability and strength tests	BS EN 12467	Category A sheet, intended for applications where is subject to heat , high moisture and severe frost
Water impermeability	BS EN 12467	Filled with water after 7 days, no leakage or any water drops
Heat-Rain test	BS EN 12467	No damage or leakage after 50 cycles of test
Warm water test	BS EN 12467	Pass
Soak-dry test	BS EN 12467	Pass for 50 cycles of test
Freezing and thawing test	BS EN 12467	Pass, no alteration nor de-lamination after 100 cycles of test
Impact test	BS EN 1128	32.98 mm/mm
MOH's Hardness	EN 101	Hardness No 2 ~ 3
Resistance to surface deep abrasion	BS EN ISO 10545-6	1439mm ³
Acoustic Performance		
Acoustic insulation	AS 1276.1, AS 1191, ASTM E90, ASTM E413, BS EN ISO 140-3, BS EN ISO 717-1	Thick Rw, dB STC 6mm 29 29 9mm 31 31 12mm 33 33
Environmental friendly		
Green labeled building board		Tested & certified by Singapore Environmental Council Hong Kong Green Council National Environmental Bureau
Organic emission	ASTM D5116-06	Non toxic & satisfied the emission tests
Recyclable product	ISO 14001	Crushed down for recycle use, Products made under ISO 14001 environmental management system

Specific Properties



Acoustic insulation



Good chemical resistance



Decorative finishes by tiles, paint or wash granolithic



High impact resistance



Resistance to mould or fungal growth



Non-combustible BS 476: Part 4



Excellent dimensional stability



Resistance to attack by insects or vermin



Easy to use



Weather resistance



Lining board for over-cladding system

Interior cladding with factory-applied polyurethane paint finish

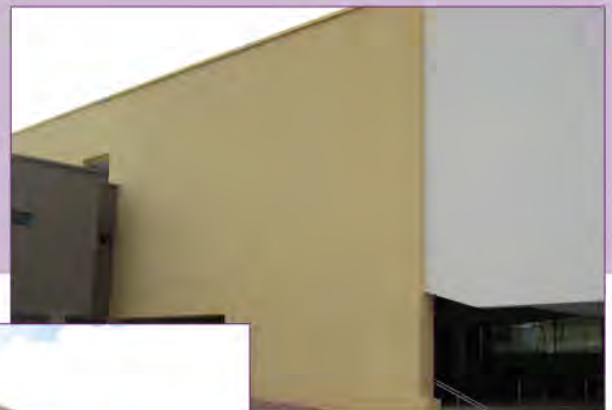


External Wall lining

Application

WeatherPro®-CP can be used in a wide variety of building applications because of its easy working, fixing and decorating characteristics. Typical applications include:

- External wall claddings
- Impact & moisture resistant decorative claddings
- Fascias and shop fronts
- Pre-fabricated units with tiled wall
- Roof slates
- Floor decking
- Wall claddings in tunnel
- Service enclosures
- Noise barriers at highway
- Left-in formwork



Health & Safety

WeatherPro®-CP 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®-CP 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.