#### WeatherPro®-Flex

#### Introduction

WeatherPro®-Flex is a high quality, external grade, thin, compressed fibre cement reinforced calcium silicate board. It is made of non-combustible raw materials and selected cellulose fibres and has undergone a high pressure pressing process, thus making WeatherPro®-Flex inborn with good bending strength, robust and moisture tolerant. It is an excellent substitute for traditional thin plywood, gypsum and wood fibre for the use on aesthetic interior decoration projects and furniture applications. Broad applications offer versatility to architects and builders. Its high flexibility enables the board to be bent to form smooth curved applications without compromising on other performances of the board. 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®-Flex is a compressed fibre cement reinforced calcium silicate board (alias as compressed fibre cement board in North America). It is formulated without asbestos or sepiolite or any other man made fibre. WeatherPro®-Flex comes with good flexibility. For a standard board of 4.5mm thickness, the minimum bending radius is approximately 630mm. Its manufacturing process is pollution-free and hence the product is an environmentally friendly building material. WeatherPro®-Flex is comprised of calcium silicate matrix, cellulose fibres of superior quality and synthetic cement silicate binder. It has undergone a pressing process together with an autoclaving process inside a curing chamber where superheat steam under high pressure is injected for curing. The synthetic cement silicate binder provides good dimensional stability and an unrivalled resistance to movement due to effects of moisture or heat. WeatherPro®-Flex 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. WeatherPro®-Flex is watertight and fully weather resistant and its performance will not degrade in its lifetime when properly installed. WeatherPro®-Flex is naturally off white in color and has smooth surface on both sides. It can be left undecorated or can be easily decorated with emulsion paints or externally applied paint finishes. Alkali-resisting primer are not required. The unique characteristic of compressed autoclaved fibre cement reinforced calcium silicate means that WeatherPro®-Flex is by itself moisture tolerant. It is tough, durable, flexible and resistant to impact damage.



### Sizes >

Thicknesses	4.5mm
Widths	900 / 1200 / 1220mm
Lengths	1800 / 2400 / 2440mm

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



# Manufacturing **Tolerances**

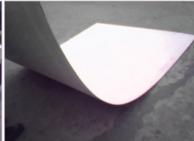
Length tolerance	+/- 5mm
Width tolerance	+/- 5mm
Thickness tolerance	+/- 0.3%
Diagonal tolerance	+/- 5mm

## Performance -

	Density	1450 kg/m <sup>3</sup> +/-6%
F	Surface alkalinity	pH 7-10
	Flexural strength (along grain)	16.3 MPa
	Flexural strength (across grain)	19.6 MPa
	Moisture movement (ambient to saturated)	0.8 mm/m
	Moisture content	Ex works - 10~15%
		In situ - 6.5%
-	Thermal conductivity	0.23 W/m.K
	Resistance to continuous heating	80°C
	Non-combustibility	BS476: Part 4
		GB 8624 - Grade A
	Non-permeability	No leakage after 6 hours of
		continuous water spray at
		0.5litre/minute under 250pa pressure
	Freezing and thawing test	No alteration nor de-lamination
		after 25 cycles of freezing / thawing







### WeatherPro®-Flex

# Specific Properties -



Acoustic insulation



Bent to shape



Decorative finishes by tiles, paint or wall paper



Easy to cut, nail or



Excellent dimensional stability



Good chemical resistance



High impact resistance



Lightweight but strong



Non-combustible



Resistance to attack by insects or vermin



Resistance to mould or fungal growth



Weather resistance



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

- Featured lining for interior and exterior decoration works.
- Smooth lining on brick/concrete wall
- Curved roofing
- Curved false ceiling and wall linings
- · Curved formwork linings
- Furniture
- Service enclosures
- External fascias and shop fronts





Health & Safety

Application

WeatherPro®-Flex 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®-Flex 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.