

Introduction

WeatherPro® is an autoclaved, moderately compressed fibre cement reinforced calcium silicate board (alias named as compressed fibre cement board in North America) that is 100% free from asbestos, sepiolite, inorganic fibres and formaldehyde. It is developed to withstand external weather conditions as well as hard wearing impact and abrasion, making it long lasting with minimum maintenance costs. WeatherPro® is an ideal, economical solution for use as an external cladding system or lining application in common areas where high impact resistance is required, particularly in potentially damp and very humid situations, such as restaurant kitchens and leisure amenities. It is highly compatible with architectural coating systems for external weatherproof applications. WeatherPro® can be left unpainted. Its special performance of exemplary strength and durability prevents water or moisture penetration. WeatherPro® is a reliable substrate to receive heavy decorative finishes, such as marble or stone tiles. 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® is produced from a mixture of cement, silica sand, special cellulose fibres and selected fillers to impart durability, toughness and moisture resistance. WeatherPro® mixture is compressed to enhance high strength and durability of board that is capable of heavy duty usage. It is then cured by an autoclaving process whereby the ingredients are reacted together under the effects of super-heated steam and high pressure. The synthetic cement silicate binder provides exceptional dimensional stability and an unrivalled resistance to movement due to effects of moisture or heat. WeatherPro® 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 by moisture or condensation and causing unsightly marks. If exposed to moisture, WeatherPro® will completely recover on drying out, with no permanent loss of strength. The board will not degrade with time and within normal applications, the life of the product is limited only by the durability of the supporting structure and materials used in fastening. WeatherPro® is natural light grey in color and has a high quality top sanded smooth finish on one side and a slightly textured reverse.



Sizes

| | |
|-------------|------------------------------------|
| Thicknesses | 6 / 9 / 12 / ~ 20mm |
| Widths | 900 / 1200 / 1220mm |
| Lengths | 1800 / 2400 / 2440 / 3000 / 3050mm |

Manufacturing Tolerances

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

Building facade panel



Performance

| | |
|--|---|
| Density | 1420 kg/m ³ +/-6% |
| Weight (approx.) | 9.40 kg/m ² – 6mm 14.10 kg/m ² – 9mm 18.80 kg/m ² – 12mm |
| Surface alkalinity | pH 7-10 |
| Flexural strength (along grain) | 14.0 MPa |
| Flexural strength (across grain) | 17.5 MPa |
| Moisture movement (ambient to saturated) | 0.6 mm/m |
| Moisture content | Ex works- 10~15% In situ- 5~6% |
| Thermal conductivity | 0.23 W/mK |
| Resistance to continuous heating | 80°C |
| Non-combustibility | AS 1530.1 BS 476: Part 4: 1970 BS EN ISO 1182: 2002 GB 8624: Grade A |
| Heat of combustion | BS EN ISO 1716: 2002 |
| Building regulations classification | Euro Class A1 |
| 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 |
| Acoustic insulation | Rw 48dB / STC 48 for 88mm thick partition Rw 49dB / STC 49 for 99mm thick partition |

Specific Properties



Weatherproof



Good mechanical resistance and rigidity



Non-combustible
BS 476: Part 4,
BS EN ISO 1182,
Euro Class - A1



Excellent dimensional stability



Decorative finishes by tiles, paint or wall paper



Easy to use



Good impact resistance



Frost resistance (passed freeze / thaw test)



Lightweight but strong



Rot proof, anti-bacterial, resistance to insects and mould growth



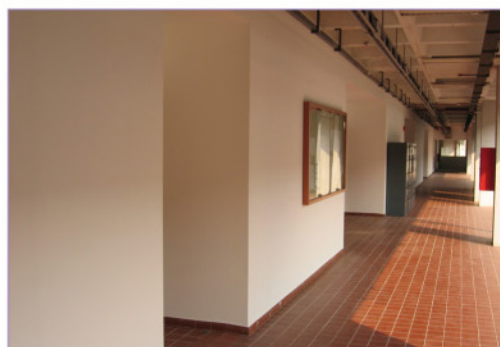
Good chemical resistance



Maintenance friendly



Acoustic insulation



Application

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

- Internal and external living architectural cladding panels for commercial or residential buildings
- Durable, impact resistant and acoustic insulation partitions in common areas
- Anti-bacterial, impact and moisture resistant lining board for food process centres, hospitals and cold stores
- Roofing slates
- Exposed roofing panels of walkway and kiosk
- Backing boards for heavy marble & granite tiles
- Pre-fabricated units with tiled wall
- Floor tiles and raised floor boards
- Decking applications, i.e. balconies, verandahs and pool surrounds
- Exposed casings to building services



External wall lining



Roofing panels



Wall cladding panels at MRT station



Wall cladding panels at Airport



Exterior wall cladding panels at Shooting Range Hall for Beijing 2008 Olympic Games



Health & Safety

WeatherPro® 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® 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.

Note: All physical performance values of products depicted in this catalogue are averages based on the standard production. The figures may be changed dependent on the test method used.