

FP[®]-Steel/FirePro[®]-S

PRODUCT DESCRIPTION

FP[®]-Steel/FirePro[®]-S is a unique fire and blast resistant panel which is non-combustible tested in accordance with European Classification A1. It has been extensively tested for a wide range of passive fire and blast resistant systems up to 6 hours fire rating in terms of the latest European and British Standards by world class independent fire testing consultants. Superior quality of FP[®]-Steel/FirePro[®]-S is traceable from raw materials, manufacture, system design and testing, backed by Certifire, a third party certification scheme for passive fire protection products, also an internationally respected mark of fire safety operated by Exova Warringtonfire.

FP[®]-Steel/FirePro[®]-S is a composite panel made with two quality galvanised metal sheets mechanically bonded to a fibre reinforced cement core making it exceptionally robust for harsh industrial

and public environments. FP[®]-Steel/FirePro[®]-S is fire, blast and severe impact resistant. One installed requires little or almost free of maintenance even in severe situations. The fibre reinforced cement core is environmental friendly with low carbon footprint complying Hong Kong and Singapore green label requirements.

FP[®]-Steel/FirePro[®]-S is manufactured to Quality Management System Certification ISO 9001 and Environmental Management System Certification ISO 14001.



SOBEN INTERNATIONAL

High Performance Building Boards & Solutions for Sustainable Construction



APPLICATIONS

FP®-Steel/FirePro®-S fire resistant systems provide reliable fire and blast protection to peoples and properties. They are used at high-rise commercial buildings, security vaults, manufacturing & warehousing complex, airports, mass transportation infrastructures, offshore oil production platforms, petrochemical plants and power generation plants. Applications are:

- Blast resistant transformer screens
- Ceilings & plenum ceilings
- Electrical & mechanical services enclosures
- Fire and blast resistant walls & hoardings
- Fire rated impact resistant doors
- Hydrocarbon fire resistant barriers
- Hazardous materials vaults
- Impact resistant barriers & spandrels
- Loadbearing floors, roofs & access panels
- Ventilation, smoke outlet & kitchen extract ducts
- Vertical shaft systems

SPECIFIC PROPERTIES



Non-combustible
Reaction to fire EN
13501-1 Euro Class
A1 and A1_{FL}



Blast resistance
Heavy impact resistance
BS EN 1128



Moisture resistance



Lightweight but robust



Up to 360-minute
fire protection
BS 476: Part 20-24
BS EN 1364-1 & 2



Excellent dimensional
stability



Good sound insulation



Immune to attack from
insects or vermin



Maintenance-free



KITCHEN
EXTRACT DUCT



RESEARCH & FIRE TESTING

Assured fire safety in a building that is one of crucial tasks for Soben International Technical Team. Extensive fire tests for FP®-Steel/FirePro®-S is to search for fire-safe solutions. Fire testing effectively measures fire performance of a construction which allows people to reach safety when during a fire. The accumulated research and test information enable our engineers to forge practical solutions catering for construction needs.



Loaded floor



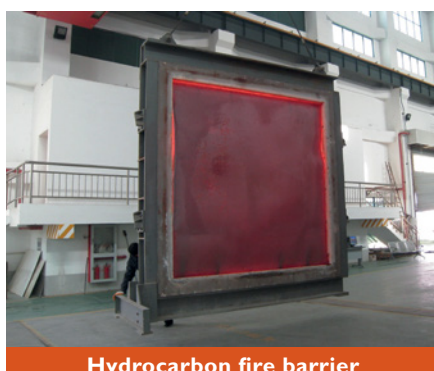
Self-supporting ceiling



Access panel



Suspended ceiling



Hydrocarbon fire barrier



Fire wall



Smoke outlet duct



Kitchen extract duct



Ventilation duct



TECHNICAL PERFORMANCE

FP®-Steel/FirePro®-S provides high level of durability and reliability on fire, blast and impact protection. Excellent mechanical properties and moisture tolerant make it suitably serves for wide applications.

TEST	STANDARD	RESULT	
Size		1200 × 2400mm	
Weight & thickness		21kg/m ² 9.5mm 17kg/m ² 6.0mm	
Composition	BS EN 10346	Facing - Z275 galvanised steel sheet, 0.5mm thick Core - Compressed high density fibre cement	
Surface alkalinity		pH 9-10	
Flexural strength	BS EN 12467	103 N/mm ²	
Bending Modulus	BS EN 12467	21883 N/mm ²	
Impact strength	BS EN 1128	> 85 mm/mm, unaffected	
Loadbearing capacity		15 kN/m ² with fire attack	
Moisture content	By weight	7- 8%	
Fire rated systems	BS 476: Part 20-24 BS EN 1363-1 & 2	Tested, up to 360 minutes	
	Hydrocarbon fire	H120 minutes	
Non-combustible	BS EN ISO 1182	Pass	
Heat of combustion	BS EN ISO 1716	Pass	
Reaction to Fire - Classification	EN 13501-1	Euro Class A1/A1FL	
Resistant to continuous heating	In house	350°C	
Blast resistance		air blast pressure 300 kN/m ² , unaffected	
Acoustic reduction (over range 100-3150 Hz)	AS 1276.1 & 1191	thickness	STC/Rw (dB)
	ASTM E90 & E413	9.5mm	32
	EN ISO 10140-3 & 717-1	6.0mm	31
Green labeled building board	Hong Kong Singapore	Fibre cement core certified, no heavy metal & no harmful substance	
Organic emission	ASTM D5116-06	Non-toxic & No formaldehyde, satisfied the emission tests	
Recyclable product	ISO 14001	Crushed down for recycle use, Products made under ISO 14001 environmental management system	

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



SPECIFICATION & INSTRUCTION

SPECIFICATION	
Size	1200 x 2400mm *All boards come with cutting square edges.
Nominal weight	21kg/m ² 9.5mm
	17kg/m ² 6.0mm
Colour & finish	Perforated and galvanised steel facing
Manufacturing Tolerances	Length +/- 5mm
	Width +/- 5mm
	Diagonal +/- 5mm
	Thickness +/- 1mm, 9.5mm +/0 1mm, 6.0mm

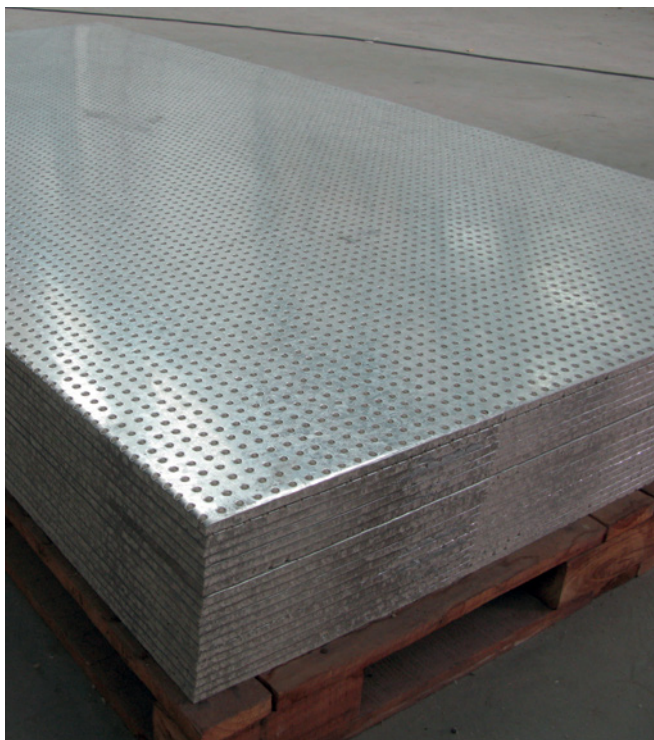
WORKING THE BOARD	
Cutting	<ul style="list-style-type: none"> ■ A power sawing tool with tungsten carbide, jigsaw, or grinder cut the panel. ■ For high efficiency and large quantities, hydraulic guillotine or water-jet cutting can be used.
Drilling	<ul style="list-style-type: none"> ■ Normal low or high speed drills can be used; scrap board placed under the drilling location will ensure a clean hole.
Precaution	<ul style="list-style-type: none"> ■ The installer should wear proper personal safety measures; protective mask and goggles. ■ Cutting and drilling are subject to dust development, proper precautions must be taken by using appropriate duct extract equipment in the confined spacing or working at well ventilated area.

FIXING & DECORATING THE BOARD	
Screwing	<ul style="list-style-type: none"> ■ Pre-drilling is not necessary. The panel is fixed with M5.5 hexagonal washer head self-drilling screws by an electric screw gun. ■ The nominal screw spacing is 200 - 250mm centres.
Stapling	<ul style="list-style-type: none"> ■ The board can be left unpainted. ■ Zinc Phosphate Primer is required. ■ In all instances follow the paint manufacturer's instructions.

BLAST EXPOSURE TEST WITH
FP®-STEEL/FIREPRO®-S AT HSL IN UK



HEALTH, SAFETY & SITE WORK GUIDANCE



HEALTHY & SAFETY

Processing

As for all other building materials, safety precautions must be taken into account and local laws and regulations must be observed.

Horizontal boards or ceiling boards without adequate supports must not be walked. If there is a risk as this occurring, warning notices should be displayed. Installers must ensure that they work from adequate and safe platform where necessary.

DISCLAIMER

Please ensure that you have the latest version of this publication by checking that the publication date corresponds with the downloadable version from our website www.sobenboard.com. In case of doubt, please contact your local Soben International representative.

All information contained in this brochure is, to the best of our knowledge, correct at the time of printing. Soben International shall be under no liability whatsoever any loss or damages which may arise as a result of the failure to adhere to such recommendations in all aspects. Nothings in these Conditions, nor any compendiums, brochures, instructions, method statements or other documents or designs issued by or on behalf of Soben International shall create or to be deemed to create any obligation.

Soben International has a policy of continuous improvement and reserves the right to change specifications, designs of products and systems at any time without prior notice. Local authority must be consulted for compliance with local building regulations.

REGISTERED TRADEMARK FP®-STEEL/FIREPRO®-S

FP®-Steel is a registered trade name for the product marketed in Europe & Hong Kong
FirePro®-S is registered trade name for the product marketed in Asia

HANDLING AND STORAGE

Manual Handling

European or local manual handling regulations applies for any heavy loading practices in order to minimize the risk of accidents to the handlers and also the possible damage to the product.

- Always lift boards off the board below, never slide board on board or drag the stack.
- Always carry the boards on edge, but do not store on edge.
- Never carry the boards on edge horizontally.

Mechanical Handling

Mechanical handling is preferred. If machine is not available, boards can also be removed manually.

Personal Protective Equipments

The best practice for work safety & occupational health should be for workers to use dust masks to prevent dust inhalation. Working clothes is preferred to be long sleeve shirts, trousers and hats to prevent direct contact with skin. Gloves should be worn at all time to prevent cuts.

Storage

Soben International's board products are delivered with plastic protection cover on the pallet against weather conditions during transportation. They are preferred to be stored inside and undercover in a dry and flat level surface on pallets or sleepers with maximum 400 mm distance, maximum 3 pallets in a stack. Stacks of loose boards should not exceed 1m (height). If the products have to be stayed outdoor temporarily, a weatherproof tarpaulin is recommended to wrap over to provide protection.

When the products get wet, moved them to a dry area with good ventilation and let them dry out naturally. It will not degrade the board themselves.



OTHER HIGH PERFORMANCE BOARDS AND SOLUTIONS

Soben International manufactures a range of high performance Eco-friendly board products and provides total solutions for **Passive Fire Protection, Multi-purpose Constructions, Façades** and **Floorings**. More details please contact your nearest Soben International office or click onto www.sobenboard.com.



FP®-900/FirePro®

PRODUCT DESCRIPTION

FP®-900/FirePro® is an eco-friendly high performance advanced calcium silicate board reinforced by fibrous cellulose fibres for passive fire protection. It is a non-combustible board with a fire rating of up to 240 minutes. It is suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications.

certifire

FP®-900/FirePro® is a CE marked eco-friendly cellulose fibre reinforced calcium silicate matrix board for passive fire protection with fire rating up to 240 minutes, purposely designed for services and ventilation ductworks, buildings and tunnels.



MP®-1000/MultiPro®

PRODUCT DESCRIPTION

MP®-1000/MultiPro® is an eco-friendly high performance advanced calcium silicate board reinforced by fibrous cellulose fibres for multi-purpose constructions. It is a non-combustible board with a fire rating of up to 90 minutes. It is suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications.

certifire

MP®-1000/MultiPro® is a CE marked eco-friendly cellulose fibre reinforced calcium silicate matrix board for multi-purposed constructions in terms of fire rating, sound insulation, moisture tolerant and curved installations.



NuPanel®/NuClad®

PRODUCT DESCRIPTION

NuPanel®/NuClad® is an eco-friendly high performance advanced calcium silicate board reinforced by fibrous cellulose fibres for non-combustible architectural linings. It is a non-combustible board with a fire rating of up to 90 minutes. It is suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications.

certifire

NuPanel®/NuClad® is a CE marked eco-friendly cellulose fibre reinforced calcium silicate matrix board, suitable for non-combustible architectural linings, and 90 minutes fire and impact resistant steel or timber framed partitions.



WeatherPro®-L

PRODUCT DESCRIPTION

WeatherPro®-L is an eco-friendly high performance advanced calcium silicate board reinforced by fibrous cellulose fibres for exterior applications. It is a non-combustible board with a fire rating of up to 90 minutes. It is suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications.

certifire

WeatherPro®-L is a CE marked eco-friendly cellulose fibre cement reinforced calcium silicate matrix board for heavy impact, water resistant and exterior applications.



WeatherPro®-CP

PRODUCT DESCRIPTION

WeatherPro®-CP is an eco-friendly high performance advanced calcium silicate board reinforced by fibrous cellulose fibres for façade or floor decking applications. It is a non-combustible board with a fire rating of up to 90 minutes. It is suitable for use in fire-rated walls, floors, ceilings, and other applications. It is also suitable for use in fire-rated walls, floors, ceilings, and other applications.

certifire

WeatherPro®-CP is a CE marked eco-friendly compressed high density cellulose fibre cement reinforced calcium silicate matrix board used as façade or floor decking applications which require to resist extreme weather and severe impact.

BUILDING WITH CONFIDENCE

FIRE-SAFE

Soben International Boards are prime protectants against fire damage. The range's high levels of fire resistance has been thoroughly tested and certified by official European laboratories.

RELIABILITY

The Soben International team is dedicated to retaining an excellent Client Services department to ensure your needs are adhered to quickly and effectively.

Quality Control and Quality Assurance programmes are in place in all Soben International divisions to guarantee that all orders of our fully tested products and solutions follow their ISO 9001, 14001 and CE Mark standards.

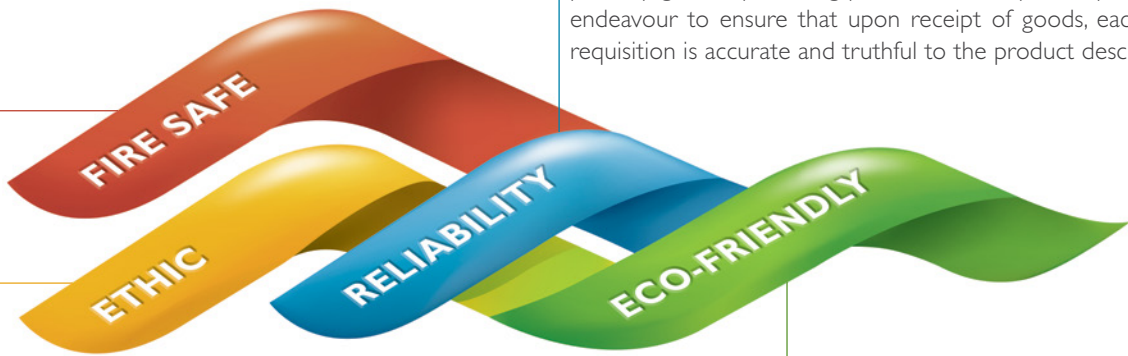
Soben International's customer service team is tasked with the primary goal of providing punctual delivery of shipments and endeavour to ensure that upon receipt of goods, each client's requisition is accurate and truthful to the product description.

ETHIC

Soben International places great onus on the preservation of good practice and professional conduct at all stages of the supply chain. This is upheld from the manufacturing process to the delivery of goods and throughout all communication with stakeholders and clientele.

ECO-FRIENDLY

Standing at the forefront of environmental innovation, Soben International is committed to sustaining and developing a commendable CSR record. Our solutions for eco building and sustainable development projects have all been certified by the appropriate Green Label authorities.



SOBEN INTERNATIONAL

HONG KONG

Soben International (Asia Pacific) Ltd

Tel: +852 3173 2683 Fax: +852 3173 2688

Email: international@sobenboard.com

www.sobenboard.com

N. IRELAND. UK

Soben International (Europe)

Tel: +44 78 9423 0583

Email: europe@sobenboard.com

SINGAPORE

Soben International (Singapore)

Tel: +65 9680 6132

Email: sg@sobenboard.com

PERTH, WA

Soben International (Australia)

Tel: +61 (0)4 1532 3888

Email: aus@sobenboard.com

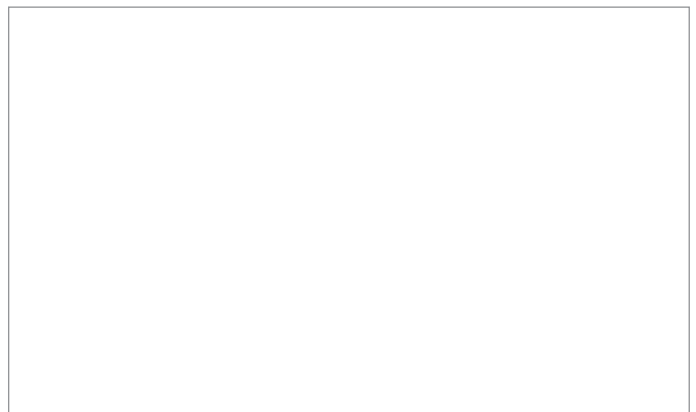
INCHEON, KOREA

Soben International (Korea)

Tel: +82 10 9015 5750

Email: kor@sobenboard.com

Your Local Distributor



SALES IN HONG KONG & MACAU REGIONS

Supreme Ecoform Limited

Tel: +852 3741 2689 Fax: +852 3741 2690

Email: info@hkseco.com