

## Introduction

FP®-900/FirePro® is a high quality laminated calcium silicate board. It does not contain asbestos, sepiolite or other inorganic fibres and is free from formaldehyde. It is a strong and lightweight, non-combustible building board for use in many fire resisting applications up to 240 minutes fire rating performance to international standards including BS, EN, GB, and ISO. FP®-900/FirePro® is made of special fire resistant minerals materials and has undergone a sophisticated process. It is simple to work with and fix, easy to decorate, resistant to the effects of moisture and will not rot and decay. FP®-900/FirePro® 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

FP®-900/FirePro® is off-white in color and has a smooth sanded surface on one side and a slightly textured reverse. It consists of fire rated minerals and calcium silicate matrix reinforced with selected fibres and special fillers. The board is then cured under an autoclave process where high pressure and steam is induced to ensure its intrinsic fire resistant property.

Apart from fire rating properties, FP®-900/FirePro® is also an ideal building board for use in constructions where there is a need for resistance to damp or high humidity. It contains no water soluble additives and will not rot, degrade or deteriorate. FP®-900/FirePro® will absorb water causing some loss of strength, which is fully recovered on drying. Any staining on the board caused by leakage can be easily painted over. Moisture will not cause leaching or efflorescence and has no permanent effect on the board. FP®-900/FirePro® is classified as non-combustible when tested in accordance with BS 476: Part 4, BS EN ISO 1182 and GB8624: Grade A. Many fire resistant constructions such as wall, ceiling, duct, protected shaft or cavity barrier had used FP®-900/FirePro® as the core element. As revealed from the tests, FP®-900/FirePro® is capable of resisting fire attack up to 1200°C for 240 minutes. Please consult Soben International for fire engineering design and details of local equivalence.



FP®-900/FirePro® under fire tests of ceiling and partition to international standards



## Sizes

Thicknesses	9 / 12 / 15 / ~ 25mm
Widths	900 / 1200 / 1220mm
Lengths	1800 / 2400 / 2440mm

Note: All metric / standard boards come with cutting square edges. Other sizes are also available and can be produced to special order.

Length tolerance +/- 5mm

Width tolerance +/- 5mm

Thickness tolerance +/- 0.3mm

Diagonal tolerance +/- 5mm



FP®-900 / FirePro® fire rated door overhead panel

## Manufacturing Tolerances

FirePro® is made of green materials. It has superior fire resistance performance and excellent dimensional stability under heat and severe moisture environments. FirePro® is suitable for the construction at damp and wet areas.

Density		900kg/m <sup>3</sup> (+/-10%)		
Nominal weight		8.9kg/m <sup>2</sup> – 9mm		
		11.9kg/m <sup>2</sup> – 12mm		
		14.8kg/m <sup>2</sup> – 15mm		
Surface alkalinity		pH 7-10		
Flexural strength		6.0 MPa (along grain)		
Flexural strength		9.5 MPa (across grain)		
Moisture movement (ambient to saturated)		0.05%		
Dimensional changes in length due to relative humidity	BS EN 318	+0.01% @20°C, RH 30%~85% - 0.02% @20°C, RH 85%~30%		
Moisture content		Ex works - 15% In situ - 6%		
Thermal conductivity	EN 12264	0.17 W/mK		
Linear thermal expansion	BS EN ISO 10515-8	-3.06 x 1E-6/°C		
Fire rated systems	BS 476: Part 20-24 BS EN1363-1 & 2	up to 240 minutes		
Non-combustible test	AS 1530.1 BS 476: Part 4 BS EN ISO 1182	Pass		
Heat of combustion	BS EN ISO 1716	Pass		
Reaction to Fire	EN 13501-1	Euro Class A1		
Surface spread of flame	BS 476: Part 7	Class 1		
Fire propagation Test	BS 476: Part 6	Class 0		
Test for ignitability	BS 476: Part 5	Class P		
Minimum bending radius		Along grain		
		7200mm for 9mm		
		9800mm for 12mm		
Acoustic reduction (over range 100-3150 Hz)	AS 1276.1	thickness	Rw, dB	STC
	AS 1191	9mm	26	26
	ASTM E90	99mm	46	46
	ASTM E413	steel stud partition		
	BS EN ISO 140-3	105mm	49	49
	BS EN ISO 717-1	steel stud partition		

## Performance

FP®-900 / FirePro® as fire barrier



FP®-900/FirePro® fire-rated wall lining

## Specific Properties



Moisture resistance



Acoustic insulation



Lightweight but strong



Small expansion rate



Fire resistance up to 240 minutes  
BS EN Standard  
Euro Class - A1



Decorative finishes by tiles, paint or wall paper



Maintenance friendly



Rot proof, anti-bacterial



Easy to use

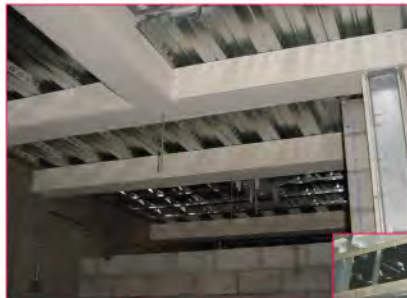


Good chemical resistance



Immune to attack from insects or vermin

Beam encasement



Fire rated duct



Column casing



FP®-900/FirePro® fire rated building service ceiling enclosure

# Application

FP®-900/FirePro® is a high performance board ideally used in constructions for resistance of fire, damp and high humidity areas such as:

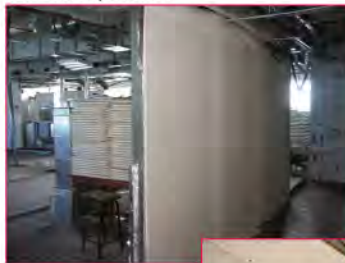
- Swimming pool
- Food processing plants
- Hospitals
- Kitchen and Laundries
- Fire rated walls and hoardings
- Fire rated doors
- Fire rated internal linings to industrial buildings
- Fire resistant parapet walls and spandrels
- Fire resistant ceiling
- Fire rated infill panels
- Composite panels
- Encasement to structural steelwork
- Smoke extraction duct encasement
- Fire rated casings for electrical & mechanical services



Access panels at fire rated ceiling

For details of fire-rated partitions / enclosure systems, please refer to the Installation Guide of fireproofing construction or contact your nearest Soben International Office.

Fire rated partition



Fire rated industrial lining



Fire rated spandrel wall

# Health & Safety

FP®-900/FirePro® is formulated without asbestos, sepiolite or any inorganic fibres. When using power saws or sanders in a confined space, dust extraction equipment is recommended to control dust levels. FP®-900/FirePro® 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.