Soben® MP-1000/MultiPro®

Introduction

Soben® MP-1000/MultiPro® is a calcium silicate board reinforced with selected cellulose fibres and fillers. It is 100% free from asbestos, sepiolite, inorganic fibres or formaldehyde. The board is versatile and suitable for use in a wide range of internal and semi-exposed external applications in building construction projects. It is an economical building board material with fire-proofing property to replace concrete or block wall for the construction of non-load bearing elements. Unlike most plywood, cement-bonded particle board, gypsum boards or magnesium boards, Soben® MP-1000/MultiPro® is light weight, strong and moisture resistant which will not warp, swell or decay in wet area. 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

Soben® MP-1000/MultiPro® is off-white in color, and has a smooth finish on one side and a slightly textured reverse. It consists of calcium silicate matrix, fire rated mineral is reinforced with selected fibres and special fillers. The board is cured under an autoclave process where high pressure and high steam is induced to ensure a complete chemical reaction, thus providing the board with excellent dimensional stability and chemical resistance.

Soben® MP-1000/MultiPro® contains no water soluble additives and will not rot, degrade or deteriorate. The board will absorb water causing some loss of strength, which is fully recovered on drying. Any staining on the panels caused by leakage can be easily painted over. Moisture will not cause leaching or efflorescence and has no permanent effect on the board.

Soben® MP-1000/MultiPro® is non-combustible when tested in accordance with AS 1530, BS 476: Part 4, 5, 6 & 7, BS EN 1364-1 :1999, BS EN ISO 1182: 2002, BS EN ISO 1716: 2002 and GB8624. The board provides a degree of thermal insulation and is resistant to continuous operating temperature up to 100°C. Soben® MP-1000/MultiPro® dry wall system complies with the requirements of BS 476: Part 22, 1987 and BS EN 1364-1: 1999 for 2 hour fire rating partition in integrity and insulation and GB/T 9978 1999 for 2 hour fire rating partition with integrity and insulation.

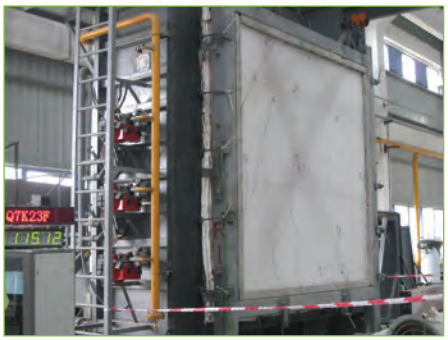
Sizes

Thicknesses	6 / 9 / 12 / ~ 25mm
Widths	900 / 1200 / 1220mm
Lengths	1800 / 2400 / 2440mm

Note: All standard boards come with cutting square edges. Recessed edges may be available upon request. 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



Fire testing to Soben® MP-1000/MultiPro® partition

Performance

MultiPro®/MP®-1000 is made of green materials. It has superior fire resistance performance and excellent dimensional stability under heat and severe moisture environments. MultiPro®/MP®-1000 is suitable for the construction at damp and wet areas.

Physical Properties		
Density Oven dry	BS EN 12467	1000 kg/m3 (+/-10%)
Nominal weight	Ambient	6.6kg/m2 – 6mm 9.9kg/m2 – 9mm 12.6kg/m2 – 12mm
Surface alkalinity		pH 7-10
Flexural strength	BS EN 12467	6.0 MPa (along grain)
		8.0 MPa (across grain)
Moisture movement	(ambient to saturated)	0.05%
Dimensional changes in length due to relative humidity	BS EN 318	+ 0.017% @20°C, RH 30%~85% - 0.017% @20°C, RH 85%~30%
Sag when suspended at 610mm span	Ambient	<1mm
Moisture content	Ambient	Ex works - 15% In situ - 6%
Water absorption capacity	by weight	~ 48%
Water tightness	ASTM C1185-08	No any formation of drops of water after a 24 hour of test
Thermal conductivity	EN 12664	0.185 W/mK
Linear thermal expansion	BS EN ISO 10515-8	-1.7x1E-6/°C
Resistance to continuous heating	In-house	100°C
Fire Performance		
Reaction of fire	EN 13501-1	Euro Class A1
Non-combustibility	BS EN ISO 1182	pass
	BS 476: Part 4 AS 1530.1 JIS A1312	
Heat of combustion	BS EN ISO 1716	pass
Surface spread of flame	BS 476: Part 7	Class 1
Fire propagation test	BS 476: Part 6	Class 0
Ignitability	BS 476: Part 5	Class P
Fire rated partition	BS 476: Part 22 BS EN 1364-1	1 hour FRP 2 hour FRP (integrity only)
Minimum bending radius	lengthwise	4800mm for 6mm 7200mm for 9mm 9800mm for 12mm
Acoustic Performance		
Acoustic insulation	AS 1276.1	
Environmental friendly	AS 1191	
Green labeled building board	ASTM E90	
	ASTM E413	
Organic emission	BS EN ISO 140-3	
	BS EN ISO 717-1	
Recyclable product		
Environmental friendly		
Green labeled building board		Tested & certified: Hong Kong Green Council, Singapore Environmental Council, National Environmental Bureau
Organic emission	ASTM D5116-06	Non toxic & satisfied the emission tests
Recyclable product	ISO 14001	Crushed down for recycle used, Product made under ISO 14001 environmental management system

	Thickness	Rw- dB	STC
Board	6mm	26	26
	9mm	28	28
	12mm	29	29
Partition	91mm tk.	45	45
	99mm tk.	48	48
	123mm tk.	55	55
	214mm tk.	60	60

Curved partition

Specific Properties

- Moisture resistance
- Lightweight but strong
- Non-combustible BS 476 : Part 4 BS EN ISO 1182 Euro Class A1
- Rot proof, anti-bacterial, resistance to insects or mould growth
- Good chemical resistance
- Bent to shape
- Acoustic insulation
- Small expansion rate
- Decorative finishes by tiles, paint or wall paper
- Maintenance friendly
- Easy to use
- Immune to attack from insects or vermin

Application

Soben® MP-1000/MultiPro® can be used in a wide variety of buliding effications due to its easy working, fix and decording traderisties. Typical affeicaties includes:

- Fire rated walls
- Dismounted dry wall systems and acoustic partitions
- Fixed smoke curtain / barrier
- Decorative and moisture resistance ceiling
- Curved architectural ceiling
- Bathroom and shower partitions
- Base board for vanity top and water basin in kitchens and laundries
- Access panels in wet area
- Backing boards for tiles or marbles or claddings
- Fire rated industrial wall linings
- Aesthetic casings for electrical & mechanical building services
- Facades, underlay to roofs
- Parapet linings
- Composite panels
- Perforated finishes
- Semi-exposed applications such as eaves, soffits and sunscreens

For details of Soben® MP-1000/MultiPro® fire rated partition / enclosure system, please refer to the Installation Guide of fireproofing construction or contact your nearest Soben International Office.

Smoke barrier

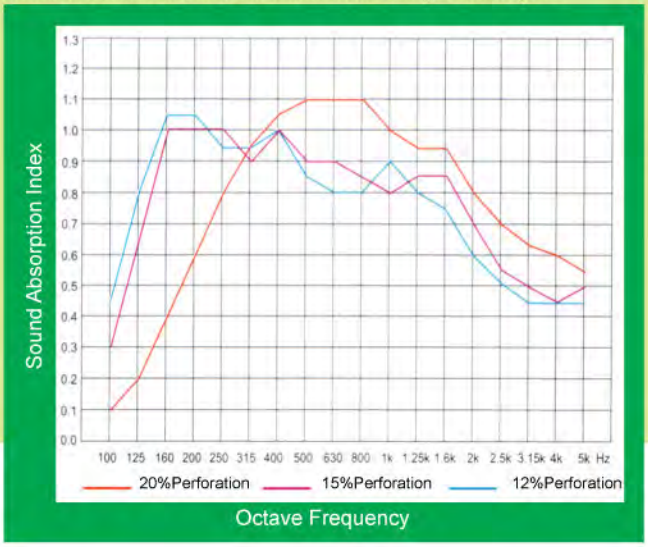
Moisture resistant ceiling

Building services enclosure with exterior paint finish

Acoustic Performance

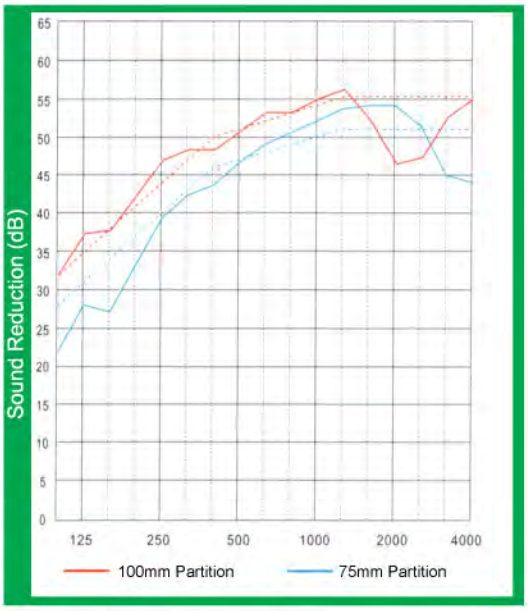
Soben® MP- 000/MultiPro® provides an economical solution for both acoustc ceilings and partitions. A perforated panel when used with fibreglass or mineral wool will provide an excellent sound absorption media. This have been widely used in opera house, conference room and lecture theatres all over the world.

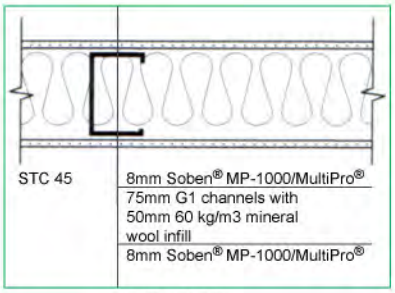
Acoustic Performance of Soben® MP-1000/MultiPro® Ceiling / Partition System



Soben® MP-1000/MultiPro® Sound Absorption Panels

On the contrary, Soben® MP-1000/MultiPro® is a good sound insulator which when suitably constructed with steel stud infill with mineral wool or fibreglass, it will achieve a sound transmission class upto 60dB (STC 60).





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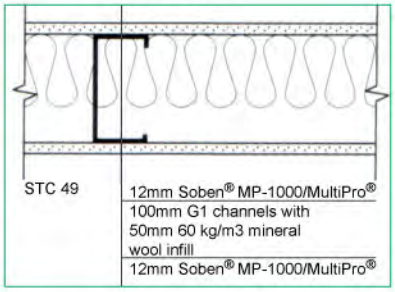

For details of Soben® MP-1000/MultiPro® acoustic partitions, please contact your nearest Soben International Office.

Health & Safety

Soben® MP-1000/MultiPro® 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. Soben® MP-1000/MultiPro® 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.