

SCG SMARTBOARD

CEILING • WALL • FLOOR



C O N T E N T

CEILING 3



WALL 5



FLOOR 7

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GREEN CHOICE PHILIPPINES PRODUCT: SCG SMARTBOARD
Voluntary eco labeling, reduce environmental impact with principles and procedures of ISO 14024



IGBC - THE INDIAN GREEN BUILDING COUNCIL PRODUCT: SCG SMARTBOARD, SMARTWOOD
Enable a sustainable built-environment for all and facilities India to be one of the global Isadora in the sustainable built environment by 2025



Certificate of Conformity Category A Class 2
Materials of Fibre-Cement Flat Sheets as complying with
MS 1296 : 2010
BS 476 : Part 6:1989+A1:2009
BS 476 : Part 7:1997



Certificate of Conformity Class 1A
Materials for Ceiling, Wall, and Floor construction as complying with
BS 476-4:1970, BS 476-6: 1989/A1: 2009 and BS 476-7: 1997 standards



Carbon Reduction Label
Indicate that SCG Smartboard production has low emission rate of greenhouse gas according to Thailand Environment Institute.



Green label brand to certify products & service solutions of SCG that are environmental friendly and well-being



Research-based, nationwide consumer survey carried for over 60 product categories to indicate brands' trustworthiness and is the most relied upon by Thailand's business society for more than 2 decades

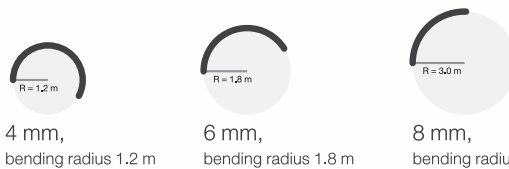


Marketeer No.1 Brand is Thailand trustworthy award which consumer can trust and guarantee for Thailand most popular brand award

PRODUCT SPECIFICATION

SCG Smartboard is made from SCG Portland cement, silica, and high quality cellulose with FIRM & FLEX technology resulting in high strength, durable, and flexible fiber cement board. Due to its superior properties, SCG Smartboard is suitable for interior and exterior use in ceiling, wall, and floor application.

SPECIAL PROPERTIES

FIRM	High impact strength	From special composition; SCG Portland cement, silica, and high quality cellulose.
	Water-resistance & non-decay	Long lasting even using in hot, humid and strong rain according to AS/NZ 2908.2 standard.
	Termite resistance	SCG Portland cement is termite resistant
FLEX	Flexible for various designs	<p>SCG Smartboard can bend without pre-water coating. The bending radius is as follows</p>  <p>4 mm, bending radius 1.2 m 6 mm, bending radius 1.8 m 8 mm, bending radius 3 m</p>
	Light weight, Fast and easy installation	Comparing to conventional system, SCG Smartboard wall system are 6 times lighter and can install with no structure require.
	Better heat resistance	SCG Smartboard has low heat conductivity, which can prevent heat from external environment.

SPECIFICATION AND STANDARD

SPECIFICATION	TEST VALUE	STANDARD
PHYSICAL PROPERTIES		
Density	1300 ± 50kg/m ³	ASTM C 1185
Modulus of rupture (Wet condition)	≥ 8MPa	ASTM C 1185
Sound resistance (STC)	38 - 61 ¹ dB	Marshall Day program
Thermal conductivity	0.134W/m.K	ASTM C 518
Water absorption	≤ 35 %	ASTM C 1185
Length change due to water absorption	≤ 0.12 %	JIS A 5414
Moisture movement	0.06 %	MS 1296
pH value	7 - 8	Litmus test
Thickness tolerance	Pass %	ASTM C 1186
DURABILITY PROPERTIES		
Freeze/Thaw resistance	Pass	ASTM C 1185
Water permeability	Pass	AS/NZS 2908.2
Warm water resistance	Pass	AS/NZS 2908.2
Soak/Dry resistance	Pass	AS/NZS 2908.2
Heat/Rain resistance	Pass	AS/NZS 2908.2
FIRE RESISTANCE PROPERTIES		
Smoke index	Class A	ASTM E84-17
Flame spread index (FSI)	0	ASTM E84-17
Smoke developed index (SDI)	0	ASTM E84-17
Non-combustibility test	Non-combustible	BS 476 Part 4
Ignitability	Pass	BS 476 Part 5
Fire propagation index	I = 0	BS 476 Part 6
Surface spread of flame	Class 1	BS 476 Part 7
Fire resistance system	60 - 180 ² mins	BS 476 Part 20-22
Single burning item	Pass	EN 13823 : 2010
Fire classification	A2-s1, d0	EN 13501-1
OTHER		
Bending radius (Thickness 4 / 6 / 8 mm)	1.2 / 1.8 / 3.0 m	

1 The STC value is derived from the Marshall Day Program with a tolerance of ± 3STC

2 Selected system



SCG SMARTBOARD CEILING

SCG Smartboard Ceiling can be installed with various elegant styles, such as bent ceiling, pocket ceiling or leveling ceiling, space lining ceiling or T-bar, or mixed among various models to enhance elegance. Down lights can be installed, or painted over by 100% acrylic paint as wished.

SCG Smartboard Square Edge

Width x Length (mm)	Thickness (mm)
600x1200	4
600x2400	3.5, 4, 6
603x1210	3.5
1200x1200	3.5, 4
1200x2400	3.5, 4, 4.5, 6
1220x2440 (4'x8')	3.5, 4, 4.5, 6

SCG SMARTBOARD VENTILATION CEILING

SCG Smartboard Ventilation

enables energy efficiency with living comfort by reducing attic heat accumulation and circulating air flow from beautifully designed pre-drilled panel.

SCG Smartboard Ventilated Protection

enhancing the benefits of air circulation by preventing insect to get through from finished high quality fiber glass mesh which is specially design to last longer in high heat environment, save time and cost of installation.

SCG Smartboard Ventilation

Width x Length (mm)	Thickness (mm)
600 x 1200	4

SCG Smartboard Ventilated Protection

Width x Length (mm)	Thickness (mm)
600 x 1200	4







SCG SMARTBOARD WALL

High impact strength, durability and easy installation

SCG Smartboard is the most suitable choice for exterior and interior wall & partition, especially in home improvement or renovation area.

- **High impact strength:** SCG Smartboard can support impact from any forces action on surface.
- **Durability:** SCG Smartboard can withstand the extreme weather like heavy rain and direct sunlight with no change in its strength properties. Plus, with its fire resistant properties, SCG Smartboard is suitable for both residential and commercial building.
- **Easy and fast installation:** SCG Smartboard wall system is 5 times faster and required less process than conventional wall. Furthermore, it requires no structural support because of its lightweight. Total wall system is 15% lighter than brick and mortar wall.

SCG Smartboard Square Edge

Width x Length (mm)	Thickness (mm)
1200 x 2400	8, 9, 10, 12
1220 x 2440 (4'x8')	8, 9, 10, 12

SCG Smartboard Tapered Edge

Width x Length (mm)	Thickness (mm)
1200 x 2400	8, 9
1200 x 2800	8

SCG SMARTBOARD FLOORING

- **Strong and Durable:** can support loading up to 500 kgs/sq m
- **Save time and cost:** comparing to conventional concrete floors, SCG Smartboard flooring has lighter weight and less installation process which, in turn, will save total cost.
- **Suitable for:**
 - Buildings that require construction rapidity such as hotel, resort, restaurant.
 - Constructions which concern about loading effect to structure and foundation.

SCG Smartboard Square Edge

Floor

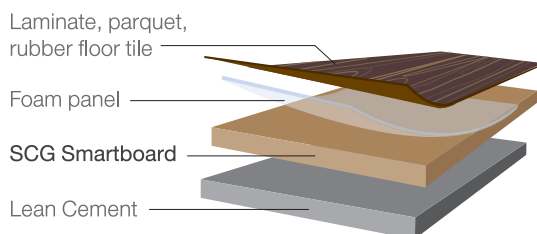
Width x Length (mm)	Thickness (mm)
1200 x 2400	15, 16, 18, 20
1220 x 2440 (4'x8')	16, 18, 20



SCG SMARTBOARD UNDERLAY

SCG Smartboard can be installed as floor underlay for laminate, parquet, or rubber floor tiles.

- **Replace polished cement** to reduce total construction time.
- **Replace plywood** for better quality and lower cost.



SCG Smartboard Square Edge

Underlay

Width x Length (mm)	Thickness (mm)
1200 x 2400	8, 9, 10, 12
1220 x 2440 (4'x8')	8, 9, 10, 12, 14





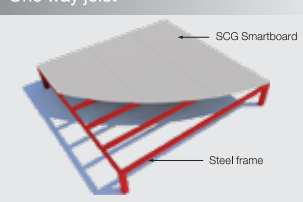
SCG Smartboard recommendation for floor

Width x Length (cm)	Thickness (cm)	Load Bearing* (kgs/sq m)	Building Type	Remarks
120 x 240	1.5	150	Houses / Residence	<ul style="list-style-type: none"> Do not install in wet area. Do not use if point load is over 100kg / 10sq cm
120 x 240	1.6	200	Office / Accommodation / Apartment / Condominium	
122 x 244 (4' x 8')	1.8	250 - 400	Public Building / Department Store / Convention Hall / School	
	2.0	500	Factory / Warehouse / Museum / Stadium	

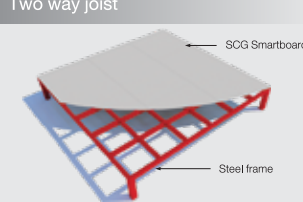
*According to Thailand standard

** SCG Smartboard thickness 0.8-1.4 cm are strongly recommended to use for floor underlay only.

Load bearing for SCG Smartboard Floor (kgs/sq m)

One way joist 	Width x Length (cm)	Thickness (cm)	Joist span for safety factor 2.5 times			
			30 cm	40 cm	50 cm	60 cm
	120 x 240	1.5	900	500	350	250
	120 x 240	1.6	1000	600	450	300
	122 x 244 (4' x 8')	1.8	1300	750	550	350
		2.0	1500	1050	700	450

*SCG Smartboard must be installed with its length side perpendicular with joist, width side are parallel to joist direction

Two way joist 	Width x Length (cm)	Thickness (cm)	Joist span for safety factor 2.5 times					
			30 x 30 cm	30 x 40 cm	30 x 60 cm	40 x 40 cm	40 x 60 cm	60 x 60 cm
	120 x 240	1.5	2600	1800	1100	1300	750	450
	120 x 240	1.6	3300	2100	1300	1500	800	500
	122 x 244 (4' x 8')	1.8	4300	2500	1700	1800	1000	650
		2.0	4500	2900	1800	2000	1200	750

*Dead load is included in above load bearing



Exterior wall
SCG Smartboard 8 mm,
Ao Nang Landmark, Krabi



Ceiling
SCG Smartboard 6 mm
Chonnada, Chiangmai



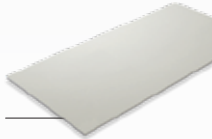

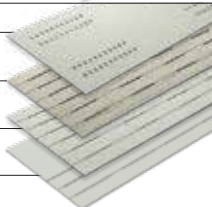

Interior wall
SCG Smartboard 8 mm
Ao Nang Landmark, Krabi



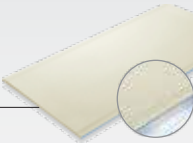



Ventilation Wood Grain
Ceiling 4 mm
Irin, Chiangmai



SCG SMARTBOARD DIRECTORY

Application	Thickness	Width x Length (mm)	Weight	Effective Area (pcs/sq m)	Installation System	Series		
Interior and Exterior Ceiling	3.5	600 x 2400	7.60	0.69	T-Bar Space Lining No Space Lining	 Squared Edge		
		603 x 603	2.00	2.78				
		603 x 1210	3.90	1.37				
		610 x 610 (2'x2')	2.00	2.69				
		1200 x 1200	7.60	0.69				
		1200 x 2400	15.20	0.35				
		1220 x 2440 (4'x8')	15.80	0.34				
	4	600 x 1200	4.40	1.39				
		600 x 2400	8.70	0.69				
		600 x 2800	10.20	0.60				
		600 x 3000*	10.90	0.56				
		610 x 610 (2'x2')	2.30	2.69				
		1200 x 1200	8.70	0.69				
		1200 x 2400	17.40	0.35				
		1200 x 3000*	21.80	0.28				
		1220 x 1220 (4'x4')	9.00	0.67				
	1220 x 2440 (4'x8')	18.00	0.34					
	4.5	1200 x 2400	19.60	0.35				
		1200 x 2700	22.10	0.31				
		1220 x 2440 (4'x8')	20.20	0.34				
	6	600 x 2400*	13.05	0.69				
		600 x 3000*	16.00	0.56				
		1200 x 2400	26.10	0.35				
		1200 x 2700	29.40	0.31				
		1200 x 3000*	32.70	0.28				
	1220 x 2440 (4'x8')	27.00	0.34					
	4	600 x 1200	5.00	1.39			Space Lining No Space Lining	 Wood Grain 3-Inch lining
		600 x 1200	5.10	1.39				
Ventilated Ceiling	4	600 x 1200	4.20	1.39	Space Lining No Space Lining	 Ventilation Ventilated wood grain Ventilated 3-inch lining Ventilated half panel		
		600 x 1200	5.00	1.39				
		600 x 1200	4.90	1.39				
		600 x 1200	5.10	1.39				
Ventilated Ceiling Protection Series	4	600 x 1200	5.10	1.39	Space Lining No Space Lining	 Ventilated capsule protection Wood grain protection 3-Inch lining protection Half panel protection		
		600 x 1200	5.00	1.39				
		600 x 1200	4.90	1.39				
		600 x 1200	4.20	1.39				

SCG SMARTBOARD DIRECTORY

Application	Thickness	Width x Length (mm)	Weight	Effective Area (pcs/sq m)	Installation System	Series
Interior Wall	8	1200 x 2400	34.60	0.35	Conceal	 2 side Tapered Edge
		1200 x 2800	40.20	0.30		
	9	1200 x 2400*	38.90	0.35		
Interior and Exterior Wall	8	1200 x 2400	34.80	0.35	Space Lining	 Squared Edge
		1220 x 2440 (4'x8')	36.00	0.34		
	9	1200 x 2400*	39.20	0.35		
		1200 x 3000*	49.00	0.28		
	10	1220 x 2440 (4'x8')	40.40	0.34		
		1200 x 2400	43.50	0.35		
	12	1220 x 2440 (4'x8')	44.90	0.34		
		1200 x 2400	52.20	0.35		
14	1200 x 3000*	65.30	0.28			
	1220 x 2440 (4'x8')	53.90	0.34			
	8	1220 x 2440 (4'x8')	62.90	0.34		
	8	1200 x 2800	40.00	0.30		 4-Inch Square Lining
Underlay	8	1200 x 2400	34.80	0.35	Space Lining No Space Lining	 Square Edge
		1220 x 2440 (4'x8')	36.00	0.34		
	9	1200 x 2400	39.20	0.35		
		1220 x 2440 (4'x8')	40.40	0.34		
	10	1200 x 2400	43.50	0.35		
		1220 x 2440 (4'x8')	44.90	0.34		
12	1200 x 2400	52.20	0.35			
	1220 x 2440 (4'x8')	53.90	0.34			
14	1220 x 2440	62.90	0.34			
	Floor	15	1200 x 2400	65.30	0.35	Space Lining No Space Lining
16		1200 x 2400	69.60	0.35		
		1220 x 2440 (4'x8')	71.90	0.34		
18		1200 x 2400	78.30	0.35		
	1220 x 2440 (4'x8')	80.80	0.34			
20	1200 x 2400	87.00	0.35			
	1220 x 2440 (4'x8')	90.00	0.34			

*Made to order product

SCG SMARTBOARD TOOLS & ACCESSORIES



- SCG Needle point screw 10 mm**
- Fixing galvanized frame C74 with U76
 - Packing size : 500 pieces / box



- SCG Self drilling screw 18 mm**
- Fixing SCG Smartboard ceiling to galvanized frame
 - Packing size : 500 pieces / box



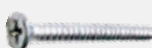
- SCG Needle point screw 23 mm**
- Fixing SCG Smartboard 4 -10 mm to galvanized frame
 - Packing size : 500 pieces / box



- SCG Self drilling wing screw 32 mm**
- Fixing SCG Smartboard 8 -12 mm to steel frame
 - Packing size : 500 pieces / box



- SCG Needle point screw 38 mm**
- Fixing SCG Smartboard 12 - 20 mm to galvanized frame
 - Fixing SCG Smartwood 16 - 25 mm to galvanized frame
 - Packing size : 250 pieces / box



- SCG Plastic anchor 37 mm**
- Use together with SCG Needle point screw 38 mm
 - Packing size : 250 pieces / box



- SCG Smart joint polymer**
- for concealed jointing wall. Only use with SCG Smartboard tapered edge.
 - Interior use only
 - Packing size : 20kgs / bag (5 small bags)



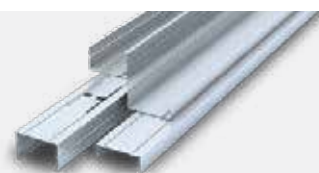
- SCG Polyurethane sealant**
- for space lining jointing wall.
 - Interior and exterior use.
 - Packing size : 310 ml / tube



- SCG Acrylic sealant**
- For screw head sealing
 - Packing size : 310 ml / tube



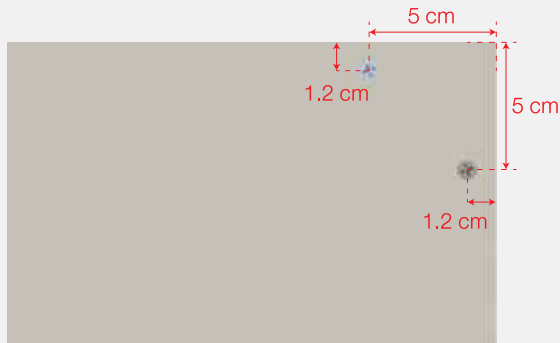
- SCG Gumcrete**
- For SCG Smartboard floor jointing sealing.
 - Packing size : 1 kg / set



- SCG Galvanize frame C74, U76**
- For wall installation.
 - Coat with hot dip galvanized steel Z22.

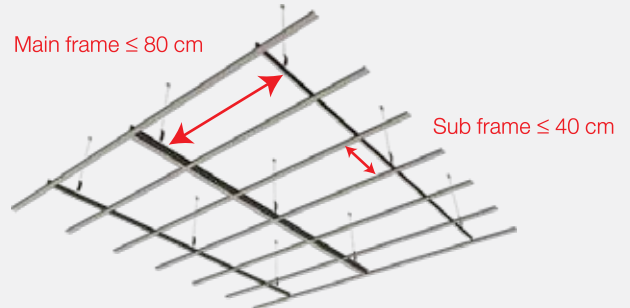
INSTALLATION

SCREW FIXING ON SCG SMARTBOARD



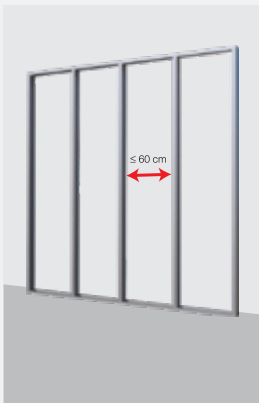
First screw fixing space is 5 cm from SCG Smartboard corner and 1.2 cm from edge and fix screw every 20 cm for next screw.

CEILING



Frame : C-Line No.24
 Main frame span: maximum 80 cm
 Sub frame span: maximum 40 cm
 SCG Smartboard Square Edge 3.5, 4, 6 mm

WALL



Frame: SCG Galvanized frame C74, U76, Steel frame

Frame span:

- Interior wall maximum 60 cm
- Exterior wall maximum 60 cm, depends on building height.

Space lining jointing wall:

- SCG Smartboard Square Edge 8, 10, 12 mm
- SCG Polyurethane sealant

Concealed jointing wall

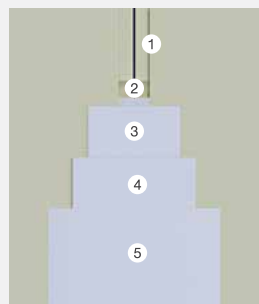
***Interior only:**

- SCG Smartboard Tapered Edge 8, 9 mm
- SCG Smart joint polymer



Space lining jointing wall

1. Leave jointing gap as wide as board thickness.
2. Clean dust and attach tape on SCG Smartboard edge.
3. Seal joint with SCG Smartboard polyurethane joint sealant, wipe off surplus PU and take out tape.



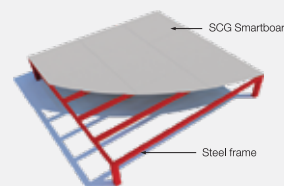
Concealed jointing wall

***Interior use only:**

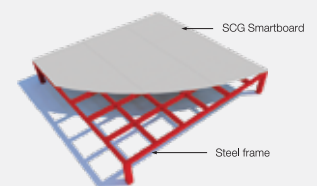
1. SCG Smartboard Tapered Edge 8, 9 mm
2. Nylon tape width more than 3.5 cm
3. Coat 1st layer of mixed SCG Smart Joint 15 cm width
4. Coat 2nd layer of SCG Smart Joint 20 cm width
5. Coat 3rd layer of SCG Smart Joint 30 cm width

FLOOR

One way joist



Two way joist



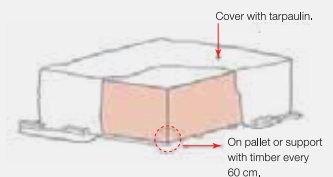
Joist: Steel frame

Frame span: maximum 60 cm *depends on load bearing and building type
 SCG Smartboard Square Edge 15, 16, 18, 20 mm
 SCG Gumcrete

HANDLING & STORING



SCG Smartboard must be carried in vertical direction with at least 2 people carry.



SCG Smartboard must be stored on a pallet or support with timber 1.5x3 inches every 60 cm on dry and levelled floor and covered with tarpaulin.



WARNING

Do not use these products as building structures, or parts of a deck or for any purposes that are not advised by SCG. When installing these products, installers must follow every step and criteria provided in the instruction manual and use tools that meet specific standards of the product manufacturer. Do not eat or swallow. Avoid inhaling wood dust generated from sawing, tapering, drilling and sanding. These products should not be installed in areas that are higher than 50 cm. from the ground.

CAUTION

The products of SCG Smartboard are designed for working condition in Thailand. Any application or usage outside Thailand must follow and is considered to be responsibility of projects' architect, designer, construction supervisor and installer. These products contain dangerous chemicals. Do not eat, swallow, or touch your eyes. Use protection equipment that meets safe standards during tactical and technical operations. After the use, store it in a secure location and keep it out of children's reach. If experience skin irritation after touching the surface of the wood, wash the irritated area with clean water and seek medical help right away. If eat or swallow, avoid vomiting, drink plenty of water to abate the chemicals, and get medical help right away. All of the criteria for installation are of rudimentary steps for normal usage only. For more in depth specifications for installations and requirements for proper sites and conditions that materials can be used under, please read the standards of allowable strength design (E.L.T 1015-40) and criteria for designing building prescribed by the ministerial regulation No. 6 B.E. 2527, which is adopted from "Building Control Act" B.E. 2522. Product installation manual is regularly updated. The architect, designer, construction supervisor, and installer shall verify the methods implemented follow the most updated installation manual on the website: <https://www.scgbuildingmaterials.com/en/product/ceiling-wall>

• Color shade may vary from real product due to production and printing process