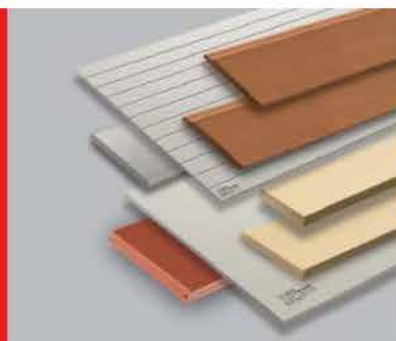


SCG Smart System



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USGBC - The U.S. Green Building Council
Product: SCG Smartboard, Smartwood

Commit to transforming the way buildings are designed, constructed and operated through LEED for sustainable structures, the



Green Choice Philippines
Product: SCG Smartboard, Smartwood

Voluntary eco-labelling, reduce environmental impact with principles and procedures of ISO 14024



SCG ECO Value
Product: SCG Smartboard, Smartwood

ECO = Economy + Ecology. The balance of environment, society, and economy towards sustainable growth in accordance with the ISO 14021 since 2009



Green Label Thailand
Product: SCG Insulation

Minimal impact on the environment in comparison to other products with the same functionality awarded by Thai Environment Institute (TEI)



IGBC - The Indian Green Building Council
Product: SCG Smartboard, Smartwood

Enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025



QCD - Qatar Civil Defense
Product: SCG Smartboard, Smartwood

Qatar Fire Prevention approval for fire fighting system, Fire safety, Fire Prevention Department, General Directorate of Civil Defence, Ministry of Interior, State of Qatar

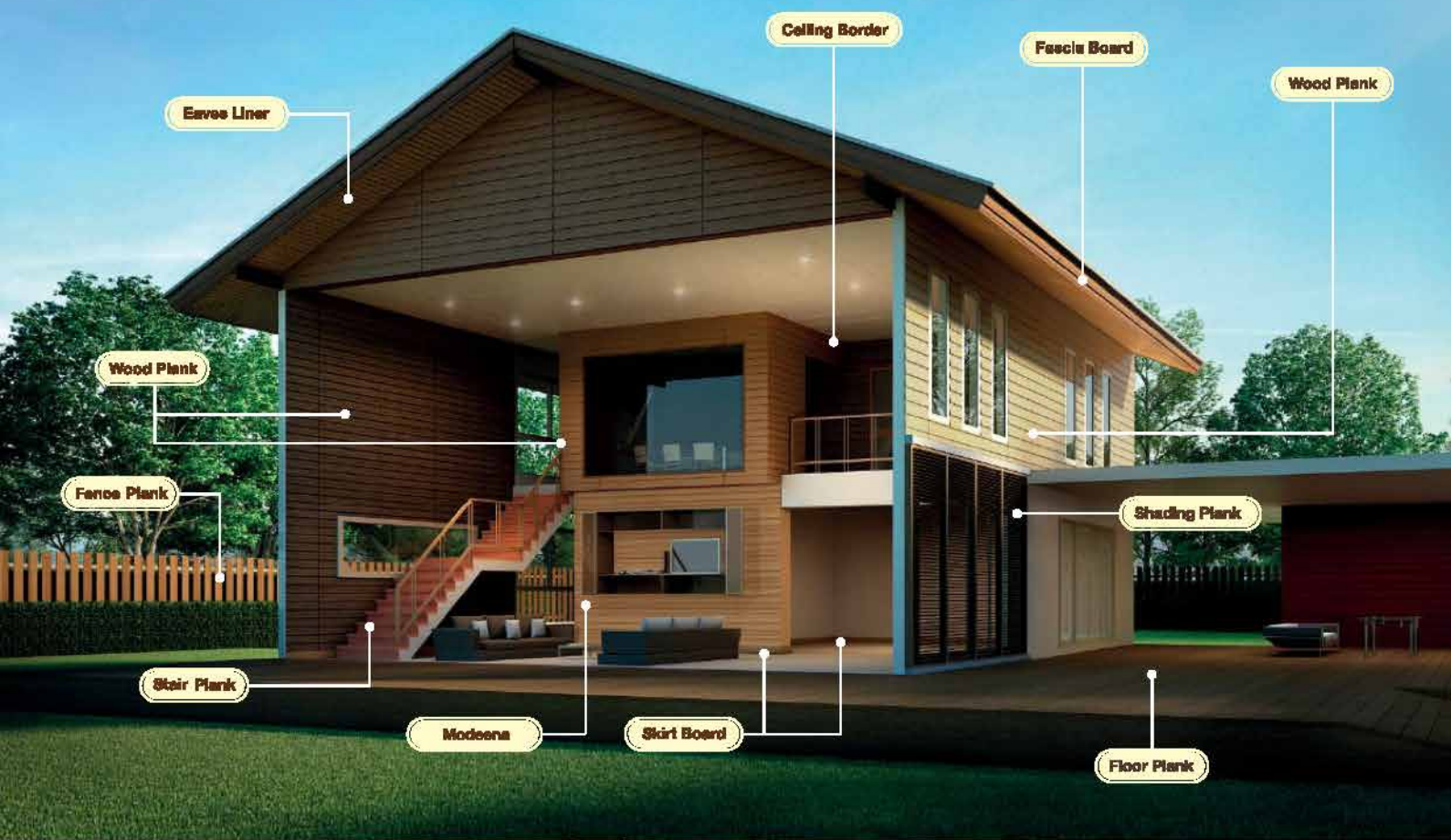


MS - Malaysian Standard
Product: SCG Smartboard, Smartwood

The inspection and testing of fibre-cement flat sheets and give the acceptance conditions due to the Construction Industry Development Board (CIDB)

The inspection and testing of fibre-cement flat sheets and give the acceptance conditions due to the Construction Industry Development Board (CIDB)





SCG Smartwood is a fiber cement wood substitute product with a quality innovation from superior **SCG Portland Cement, Silica Sand, and Special Cellulose Fiber** with high standardized processes (Autoclave Process). **SCG Smartwood** creates natural look, attractiveness, and confidence of use.

COLOR Superiority with LOC

Color Loc technology locks every molecule firmly onto SCG Smartwood fiber with a special spraying technique developed especially for synthetic wood and submitted to a high temperature curing process to help lock the paint for long lasting color, so colored Smartwood stays naturally attractive, looks like real woods and lasts longer.

3rd Layer

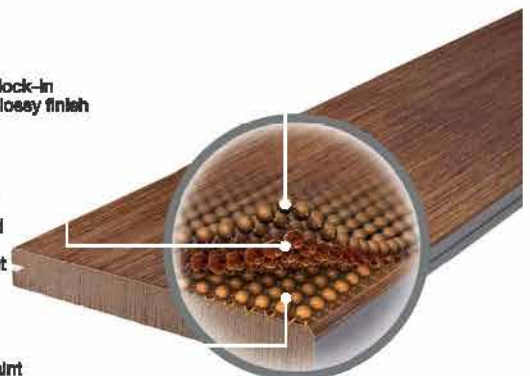
A clear coat to lock-in strength for a glossy finish

2nd Layer

Paint for wood finish tones and adherence to the clear coat

1st Layer

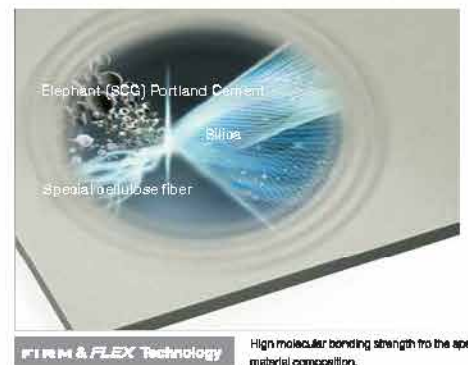
Primer helps paint adhere to the wood



SCG Smartboard



is a new generation of fiber cement material with **FIRM & FLEX** Technology made the board gain strength, durability and elasticity in one time. SCG Smartboard, with state-of-the-art composition of Elephant (SCG) Portland Cement, Silica and Special cellulose fiber through Autoclave process, is specifically designed for various ceiling, wall and flooring applications both internal and external usage.



Special Properties

FIRM	High Impact strength	High impact strength from state-of-the-art composition of Elephant (SCG) Portland Cement, Silica and Special cellulose developed by our laboratory.
	Water-Resistance and Non-decay	Long lasting even using in hot, humid, and strong raining weather condition according to JIS Standard A5420.
	Termite Resistance	Termite resistance from Portland cement material.
FLEX		Bendable. No water is needed to be applied while bending the board.
	Flexibility for various designs	
	Light Weight, fast and easy to install	With only 30 kg. per sq.m. total weight of internal partition and faster installation than conventional system, it provides flexibility of designs and durability of applications better than conventional systems.
	Better heat resistance	With specially low heat conductivity compared to typical light-weight ceiling and wall material, SCG Smartboard is the ideal material for preventing heat from external environment, reducing energy consumption and answering green designs.

Specification and Standard

Physical Property	Test value	Unit	Standard
Density	1300	Kg/m ³	ASTM C1185
Modulus of Rupture (Equilibrium condition)	13	Mpa	ASTM C1185
Modulus of Rupture (Wet condition)	10	Mpa	ASTM C1185
Modulus of Elasticity	4500	N/Sqm.	ASTM C1185
Tension force perpendicular to the surface	1	Mpa	JIS A 5905
Moisture content	8-14	%	ASTM C1185
Water absorption rate	30	%	ASTM C1185
Length Change by water absorption	0.12	%	JIS A 5420
Dry Shrinkage rate (60°C, 24 hrs.)	0.06	%	ASTM C1185
Resistant to leakage (Water Permeability)	Pass	-	ASTM C1185
Durability Property	Test value	Unit	Standard
Freeze/Thaw Resistance	50	Cycle	ASTM C1185
Warm Water Resistance	Pass	-	AS/NZS 2908
Soak/Dry Resistance	25	Cycle	AS/NZS 2908
Heat/Rain Resistance	25	Cycle	AS/NZS 2908
Fire resistance Property	Test value	Unit	Standard
Ignitability	Pass	-	BS 476 part 5
Fire Propagation Index	Pass	I = 0	BS 476 part 6
Surface Spread of Flame	Pass	Class 1	BS 476 part 7
System flame resistant ^②	1-2	Hour	BS 476 Part 20-22
Heat or Thermal Conductivity (K)	≥ 0.084	W/M ² K	ASTM C117
Noise Protection	Test value	Unit	Standard
Sound Resistant (STC) ^①	38	dB	BS2750

Remark: 1. When installing 8 mm. SCG Smartboard with light-weight-wall galvanized studs with no sound insulation.
2. When installed with Rockwool fire-insulation or SCG High Temp 3850 insulation.



CEILING

SCG SMART CEILING SYSTEM

SCG Cool Ceiling System

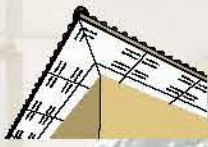
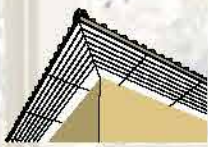
Cool Ceiling System	RT (m ² K/W)	Electricity Cost Saving		
	1.8	Up to 47%		
STAY COOL 75 mm. Premium	Facing Type	Thickness (mm.)	Thermal Conductivity (K) W/m.K	Thermal Resistance (R _t) m ² K/W
	Aluminum Foil	75	0.042	1.8

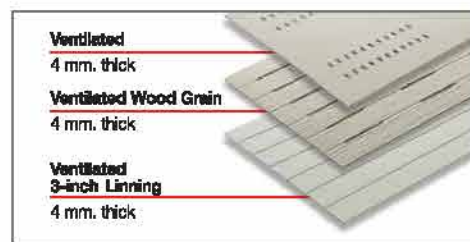
System detail	R _t calculation	Heat Resistance	
		R _t (m ² K/W)	U _t (W/m ² K)
Concrete Roof tile Smartboard 3.5 mm. SCG Insulation: Stay Cool 75 mm. Premium	Outside air film Concrete Roof tile Slope 22.5°C Air space(Low E) Stay Cool 75 mm. Premium SmartBoard 3.5 mm. Inside air film	0.055 0.008 1.356 1.786 0.042 0.162	3.409 0.293
Concrete Roof tile Smartboard 4 mm. SCG Insulation: Stay Cool 75 mm. Premium	Outside air film Concrete Roof tile Slope 22.5°C Air space(Low E) Stay Cool 75 mm. Premium SmartBoard 4.0 mm. Inside air film	0.055 0.008 1.356 1.786 0.048 0.162	3.415 0.293
Concrete Roof tile Smartboard 6 mm. SCG Insulation: Stay Cool 75 mm. Premium	Outside air film Concrete Roof tile Slope 22.5°C Air space(Low E) Stay Cool 75 mm. Premium SmartBoard 6.0 mm. Inside air film	0.055 0.008 1.356 1.786 0.071 0.162	3.438 0.291
Concrete Roof tile Smartboard 8 mm. SCG Insulation: Stay Cool 150 mm. Premium	Outside air film Concrete Roof tile Slope 22.5°C Air space(Low E) Stay Cool 150 mm. Premium SmartBoard 6.0 mm. Inside air film	0.055 0.008 1.356 3.571 0.071 0.162	5.224 0.191



Reducing temperature under the roof and ceiling with SCG Smartboard and SCG Insulation Stay Cool comes with aluminum foil to protect the heat from ceiling to the house. Ultimately save your electricity bill.

SCG Ventilation Ceiling System

System Detail		Ratio Ventilated: Roof Ceiling area	Temperature Ceiling (°C)	Reducing Temperature (°C)
SCG Smartboard Ventilated Capsule		1:250	38.1	6.9
SCG Smartboard Ventilated wood grain or Ventilated 3inch-lining		1:250	38.1	6.9

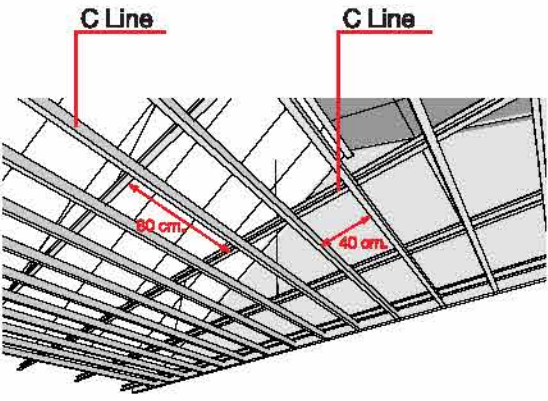


SCG Ventilation Ceiling System enables energy efficiency with living comfort. **SCG Smartboard Ventilation** series helps circulate air flow under the roofing with the factory-made drilled holes suitable for external eaves ceiling application guaranteed moisture and water resistance.

SCG Internal Ceiling System (Space lining)



*Concealed ceiling (no gap) is not suggested due to chance of crack



SCG Smartboard Internal Ceiling System can be installed with various designs such as SCG Smartboard standard (plain), wood grain, 3-inch lining series or with SCG Smartwood Eaves Liner. Installing down lights or painting over by 100% acrylic color (water base) is very convenient

SCG Internal Ceiling System (Space lining)

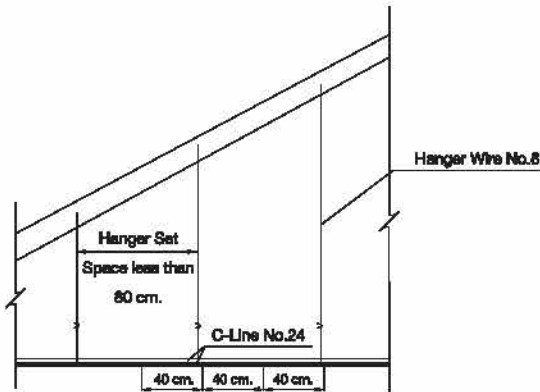
Design 1

Area: 3 m. X 3 m.

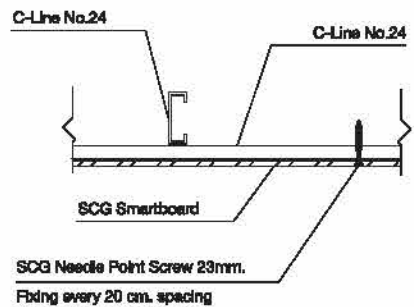
Order	Description	Amount	Unit
1	SCG Smartboard 3 Inches Lining 60X120X0.4 cm.	6	sheet
2	SCG Smartboard Wood Grain 60X120X0.4 cm.	2	sheet
3	SCG Smartboard Square Edge 60X120X0.4 cm.	5	sheet
4	C-Line No.24	18	pcs
5	Wall Angle*	5	pcs
6	Hanger set*(Hanger wire + Hook Wire + Expansion bolt + Bolt Angle + Flx spring)	12	set
7	Connect Clip*	26	pcs
8	SCG Plastic Insert 37 mm.	17	pcs
9	SCG Needle Point Screw 23 mm.	210	pcs
10	SCG Needle Point Screw 38 mm.	17	pcs
11	SCG Smartboard Polyurethane Sealant 310 ml.	2	tube

*Available in leading building material stores.

1



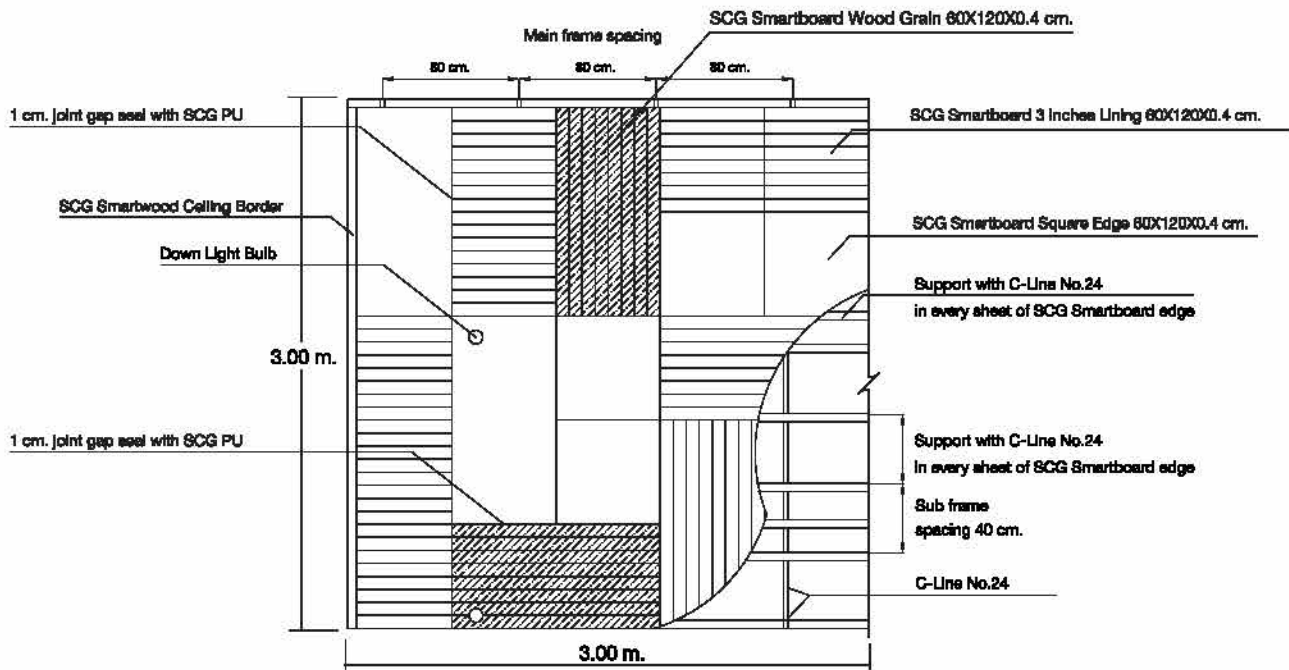
2



Section

Detail

3



SCG Internal Ceiling System (Space lining)

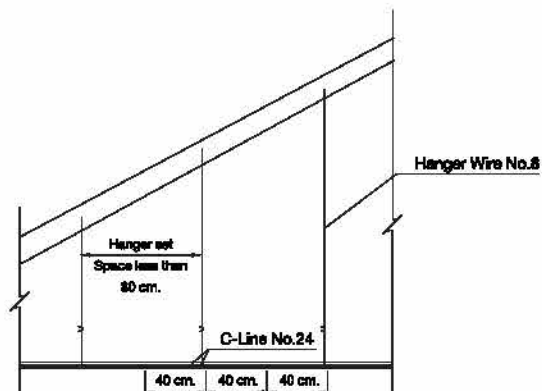
Design 2

Area: 3 m. X 3 m.

Order	Description	Amount	Unit
1	SCG Smartboard Square Edge 120X240X0.4 cm.	13	sheet
2	SCG Smartboard Eaves Liner	2	sheet
3	C-Line No.24	17	pcs
4	Wall Angle*	5	pcs
5	Hanger set*(Hanger wire + Hook Wire + Expansion bolt + Bolt Angle + Fix spring)	12	set
6	Connect Clip*	26	pcs
7	SCG Plastic Insert 37 mm.	17	pcs
8	SCG Needle Point Screw 23 mm.	226	pcs
9	SCG Needle Point Screw 38 mm.	17	pcs
10	SCG Smartboard Polyurethane Sealant 310 ml.	2	tube

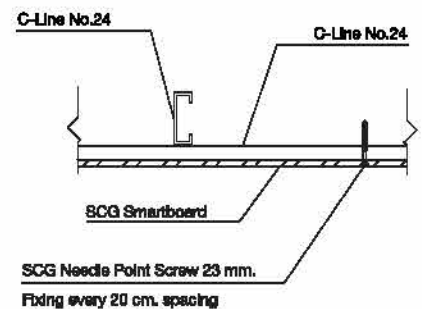
*Available in leading bearing material stores.

1



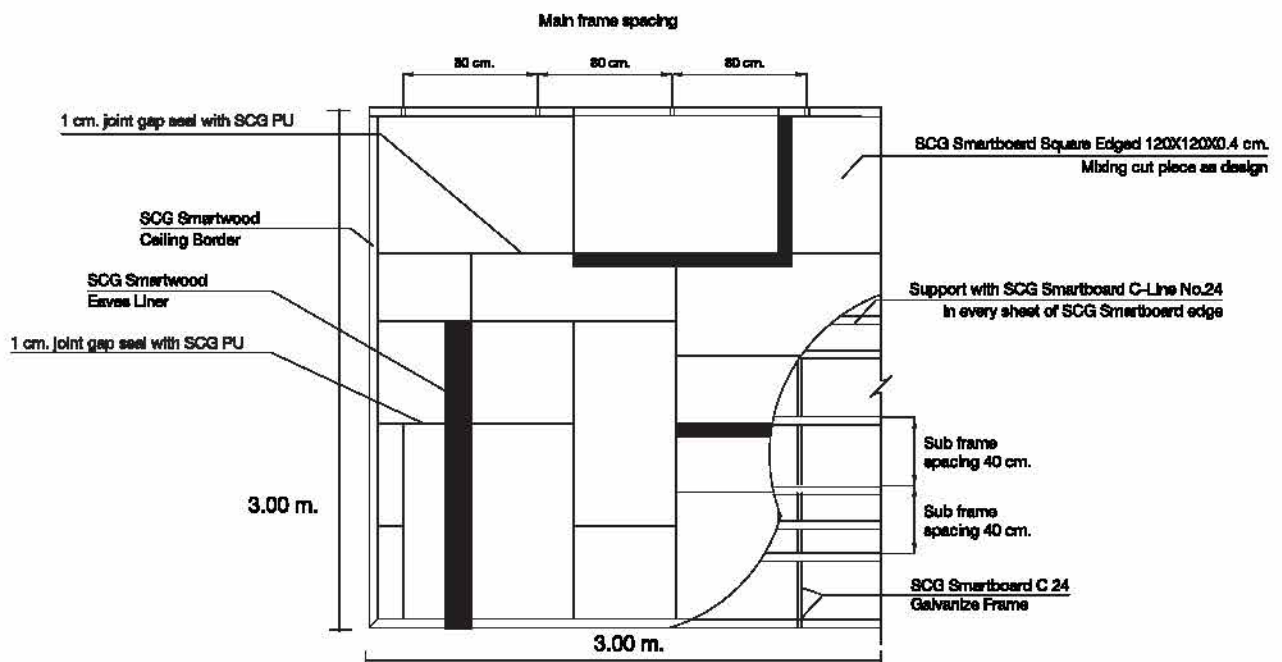
Section

2



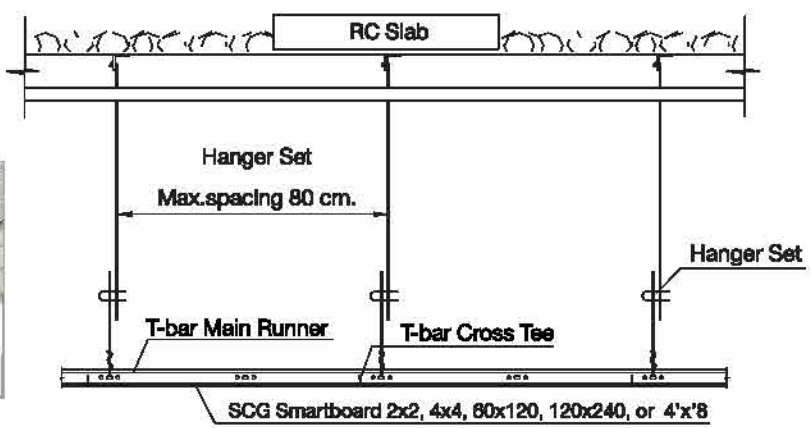
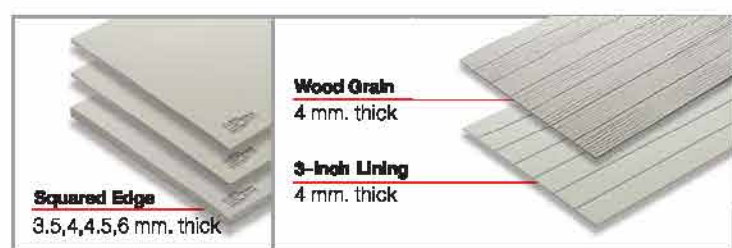
Detail

3





SCG Internal Ceiling System (T-bar or False Ceiling)



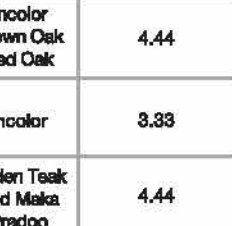
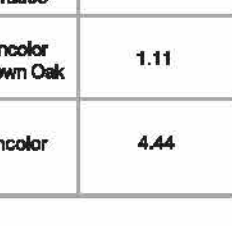
SCG T-bar system or False Ceiling is another option for internal ceiling for most offices or residences.

In addition to traditional plain ceiling, **SCG Smartboard** offers a wide range of designs and patterns either with lining or wooden grain look presenting unconventional looks

SCG Smart Ceiling System

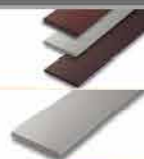
Product size and dimension

SCG Smartboard

Application	Thickness (mm.)	Width x Length (mm.)	Installation system	Weight (kg/pc.)	Effective Area (pcs./sq.m.)	Series
Internal and External Ceiling	3.5	600 x 2400	T-Bar Space lining No space lining	7.6	0.69	Squared Edge 3.5, 4, 4.5, 6 mm. thick 
		1200 x 1200		7.6	0.69	
		1200 x 2400		15.2	0.35	
		603 x 603		1.90	2.75	
		603 x 1210		3.9	1.37	
	4	610 x 1220 (2'x4') ^①		4.0	1.34	Wood Grain 4 mm. thick 
		1220 x 1220 (4'x4') ^①		7.9	0.67	
		1220 x 2440 (4'x8')		15.8	0.34	
		600 x 1200		4.4	1.39	
		600 x 2400		8.7	0.69	
	4.5	1200 x 1200		8.7	0.69	3-Inch Lining 4 mm. thick 
		1200 x 2400		17.4	0.35	
	6	610 x 610 (2'x2')		2.3	2.69	Ventilated 4 mm. thick 
		1220 x 1220 (4'x4')		9.0	0.67	
	6	1220 x 2440 (4'x8')		18.0	0.34	Ventilated Wood Grain 4 mm. thick 
		1220 x 2440 (4'x8')		20.2	0.34	
Ventilated Ceiling	4	600 x 1200	Space lining No space lining	26.1	0.35	Ventilated 3-Inch Lining 4 mm. thick 
				27.0	0.34	
				5.0	1.39	
Ventilated Ceiling	4	600 x 1200	Space lining No space lining	5.1	1.39	Ventilated 3-Inch Lining 4 mm. thick 
				4.2	1.39	
				4.9	1.39	

① Made to order

SCG Smartwood

Product Application	Name	Width (cm.)	Thickness (mm.)	Length (m.)	Weight (kg./pc.)	Surface	Edges	Color/Model	Usage Quantity (pcs./sq.m.)
Eaves Liner	 Eaves Liner Tapered	7.5 (3")	8	3	2.70	Smooth surface	2 Side tapered	Uncolor /Brown Oak /Red Oak	4.44
		10 (4")	8	3	3.60	Smooth surface	2 Side tapered	Uncolor	3.33
	 Wood Grain Wow	7.5 (3")	8	3	2.70	Deep wood texture	2 Side tapered	Golden Teak /Red Maka /Pradoo	4.44
	 Grooving 3" Lining	30	8	3	9.10	Smooth surface	2 Side tapered	Uncolor /Brown Oak	1.11
	 Eaves Liner Wood Grain	7.5 (3")	8	3	2.70	Deep wood texture	2 Side tapered	Uncolor	4.44



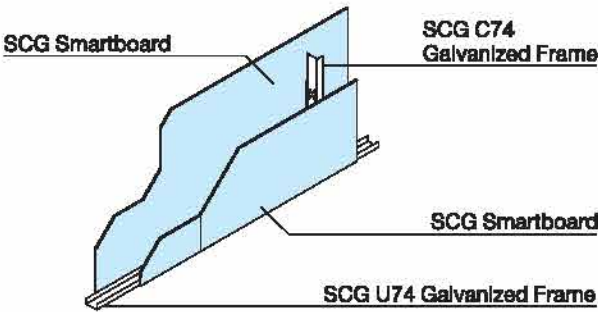
WALL

SCG SMART WALL SYSTEM

SCG Internal Drywall System

SCG Smartboard (thickness)	R _T calculation (R _T)		Heat Resistance		Acoustical Control (STC)	Lighter than brick wall (times)
			R _T (m ² K/W)	U _T (w/m ² K)		
8 mm.	Outside air film Smartboard 8 mm. Air Gap (High E) Smartboard 8 mm. Inside air film	0.044 0.095 0.154 0.095 0.120	0.508	1.967	38	6
9 mm.	Outside air film Smartboard 9 mm. Air Gap (High E) Smartboard 9 mm. Inside air film	0.044 0.107 0.154 0.107 0.120	0.532	1.879	40	5.7
10 mm.	Outside air film Smartboard 10 mm. Air Gap (High E) Smartboard 10 mm. Inside air film	0.044 0.119 0.154 0.119 0.120	0.556	1.798	41	5.3
12 mm.	Outside air film Smartboard 12 mm. Air Gap (High E) Smartboard 12 mm. Inside air film	0.044 0.143 0.154 0.143 0.120	0.604	1.656	43	4.5
14 mm.	Outside air film Smartboard 14 mm. Air Gap (High E) Smartboard 14 mm. Inside air film	0.044 0.167 0.154 0.167 0.120	0.651	1.535	45	3.7
Brick and Mortar Wall	Outside air film Mortar 10 mm. Brick 80 mm. Mortar 10 mm. Inside air film	0.044 0.018 0.069 0.018 0.120	0.269	3.711	44	-

*Only space lining method with SCG Smartboard square edge series is suggested

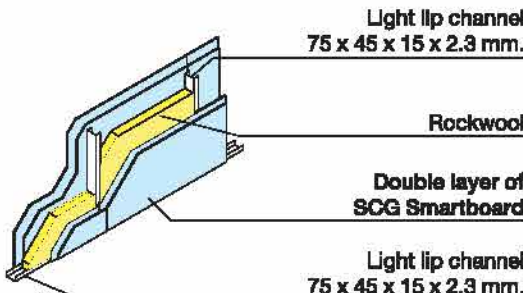
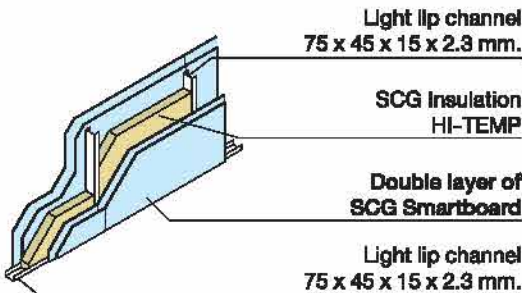


SCG Drywall System is making traditional brick and mortar walls obsolete. It not only offers excellent durability and water resistance, thanks to the innovative quality of **SCG Smartboard**, but also timely installation and flexibility in terms of future modifications and refurbishment.

Its smoother finish provides aesthetically pleasing crack free surfaces perfect for painting. Hence, **SCG Drywall System** is ideal for all wall applications, including wet area walls.

SCG Fire Resistance System

SCG Smartboard (thickness)	Insulation	R _f calculation (R _f)	Heat Resistance		Acoustical Control (STC)	Fire Rating (minutes)	Lighter than brick wall (times)
			R _f (m ² K/W)	U _f (W/m ² K)			
10 mm. Double Layers	Rockwool 50 mm.	Outside air film Double layers Smartboard 10 mm. Rockwool 50 mm. Double layers Smartboard 10 mm. Inside air film	0.044 0.238 1.471 0.238 0.120	2.111 0.474	61	102	2.64
12 mm. Double Layers	SCG Insulation: HI-TEMP 3850	Outside air film Double layers Smartboard 12 mm. SCG Insulation: HI-TEMP 3850 Double layers Smartboard 12 mm. Inside air film	0.044 0.286 1.563 0.286 0.120	2.298 0.435	60	105	2.25
12 mm. Double Layers	Rockwool 50 mm.	Outside air film Double layers Smartboard 12 mm. Rockwool 50 mm. Double layers Smartboard 12 mm. Inside air film	0.044 0.286 1.471 0.286 0.120	2.206 0.453	61	150	2.25
Brick and Mortar Wall			-	2.269 3.717	44	240	-



Fire protection is one of the most essential parts of many projects. **SCG Fire Resistance System** ensures that your building satisfies fireresistance requirements and provides peace-of-mind and safety.

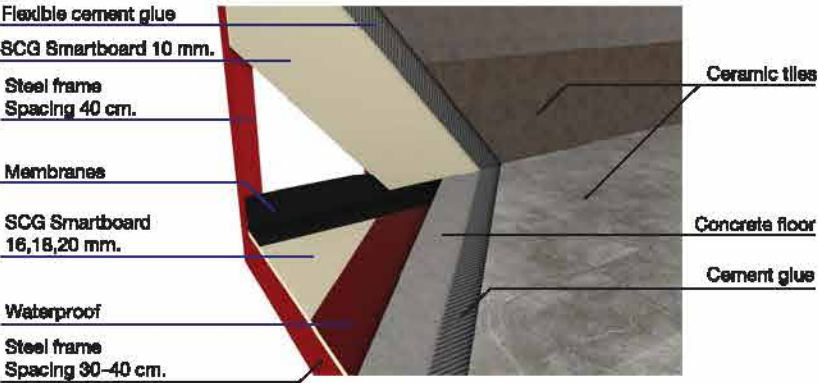
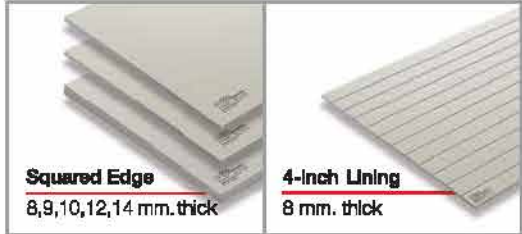
SCG Fire Resistance System contains SCG Insulation HI-TEMP 3850 that ensures up to 105 minutes of fire resistance while SCG Smartboard Fire Protection System containing Rockwool provides up to 150 minutes of fire-resistance.

This makes **SCG Fire Resistance System** a smart solution for peace-of-mind and safety.



SCG Moisture/Water Resistance System

SCG Smartboard (thickness)	R _f -calculation (R _f)	Heat Resistance		Acoustical Control (STC)	Lighter than brick wall (times)
		R _f (m ² K/W)	U _f (W/m ² K)		
10 mm.	Outside air film 0.044 Smartboard 10 mm. 0.119 Air Gap (High E) 0.154 Smartboard 10 mm. 0.119 Ceramic Tile 0.031 Inside air film 0.120	0.587	1.703	46	5.3
12 mm.	Outside air film 0.044 Smartboard 12 mm. 0.143 Air Gap (High E) 0.154 Smartboard 12 mm. 0.143 Ceramic Tile 0.031 Inside air film 0.120	0.635	1.576	48	4.5
14 mm.	Outside air film 0.044 Smartboard 14 mm. 0.167 Air Gap (High E) 0.154 Smartboard 14 mm. 0.167 Ceramic Tile 0.031 Inside air film 0.120	0.682	1.466	49	3.7

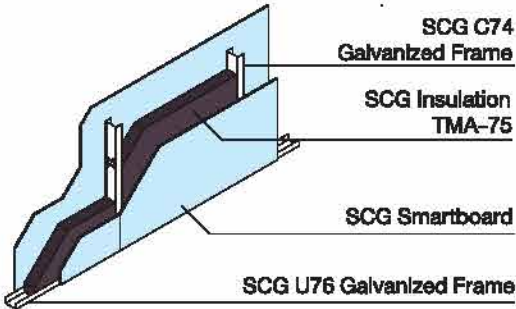


Advantageous over other materials, **SCG Smartboard** deserves its prominent function of moisture/water resistance with termite-free. Ceramic tiles with membranes and waterproof system is necessary to help prevent leakage



SCG Heat Protection System

SCG Smartboard (thickness)	R _T calculation (R _T)		Heat Resistance		Acoustical Control (STC)	Lighter than brick wall (times)
			R _T (m ² K/W)	U _T (W/m ² K)		
8 mm.	Outside air film Smartboard 8 mm. SCG Insulation: TMA 75 Smartboard 8 mm. Inside air film	0.044 0.095 2.143 0.095 0.120	2.497	0.400	45	5.8
9 mm.	Outside air film Smartboard 9 mm. SCG Insulation: TMA 75 Smartboard 9 mm. Inside air film	0.044 0.107 2.143 0.107 0.120	2.521	0.397	48	5.3
10 mm.	Outside air film Smartboard 10 mm. SCG Insulation: TMA 75 Smartboard 10 mm. Inside air film	0.044 0.119 2.143 0.119 0.120	2.545	0.393	50	5.1
12 mm.	Outside air film Smartboard 12 mm. SCG Insulation: TMA 75 Smartboard 12 mm. Inside air film	0.044 0.143 2.143 0.143 0.120	2.593	0.386	53	4.4
14 mm.	Outside air film Smartboard 14 mm. SCG Insulation: TMA 75 Smartboard 14 mm. Inside air film	0.044 0.167 2.143 0.167 0.120	2.640	0.379	54	3.8
Brick and Mortar Wall	-		2.890	3.717	44	-



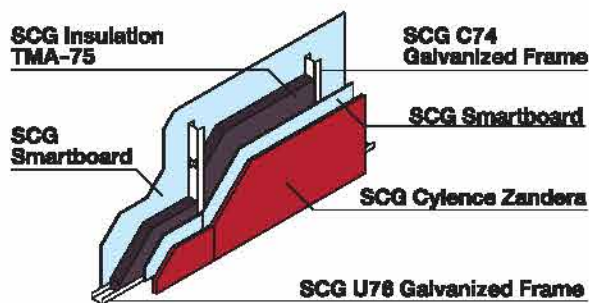
One of the many new trends about homes is sustainability. Developers and homeowners are trying to find the right solution that would improve energy efficiency while providing comfort for the householders.

By containing thermal insulation, **SCG Smartboard Heat Protection System** effectively keeps buildings properly insulated. It is the right wall solution that constantly keeps interior temperatures at a comfortable level, thereby delivering a new level of living comfort and allowing homeowners to save on energy bills.



SCG Sound Acoustic System

SCG Smartboard (thickness)	R _T calculation (R _T)	Heat Resistance		Acoustical Control (STC)	Sound Absorption NRC	Lighter than brick wall (times)
		R _p (m ² K/W)	U _p (W/m ² K)			
8 mm.	Outside air film 0.044 Smartboard 8 mm. 0.095 SCG Insulation: TMA 75 2.143 Smartboard 8 mm. 0.095 SCG Acoustic: 0.806 Cylence Zandera Inside air film 0.120	3.304	0.303	45	0.75	5.2
9 mm.	Outside air film 0.044 Smartboard 9 mm. 0.107 SCG Insulation: TMA 75 2.143 Smartboard 9 mm. 0.107 SCG Acoustic: 0.806 Cylence Zandera Inside air film 0.120	3.328	0.301	48	0.75	4.8
10 mm.	Outside air film 0.044 Smartboard 10 mm. 0.119 SCG Insulation: TMA 75 2.143 Smartboard 10 mm. 0.119 SCG Acoustic: 0.806 Cylence Zandera Inside air film 0.120	3.351	0.298	50	0.75	4.7
12 mm.	Outside air film 0.044 Smartboard 12 mm. 0.143 SCG Insulation: TMA 75 2.143 Smartboard 12 mm. 0.143 SCG Acoustic: 0.806 Cylence Zandera Inside air film 0.120	3.399	0.294	53	0.75	4.1
14 mm.	Outside air film 0.044 Smartboard 14 mm. 0.187 SCG Insulation: TMA 75 2.143 Smartboard 14 mm. 0.187 SCG Acoustic: 0.806 Cylence Zandera Inside air film 0.120	3.447	0.290	54	0.75	3.5
Brick and Mortar Wall	Outside air film 0.044 Mortar 10 mm. 0.018 Brick 80 mm. 0.069 Mortar 10 mm. 0.018 Inside air film 0.120	0.268	3.711	44	-	-

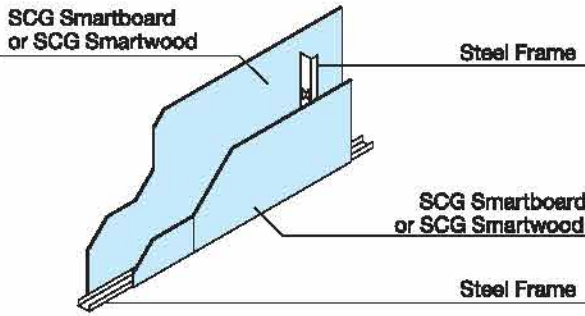


Undoubtedly , privacy is one of the most vital elements when designing a living space. **SCG Sound Acoustic System** maximizes the enjoyment of your living space by properly preventing sound migration from one room to another.

It enables homeowners to be able to design their own living space. Whether it is to appreciate a quiet environment or to effectively learn, work or enjoy the enhanced sound quality of media entertainment, **SCG Sound Acoustic System** allows you to accomplish either.

SCG External Wall System

SCG Smartboard (thickness)	R _T calculation (R _T)		Heat Resistance		Acoustical Control (STC)	Lighter than brick wall (times)
			R _T (m² K/W)	U _T (W/m²K)		
8 mm.	Outside air film Smartboard 8 mm. Air Gap (High E) Smartboard 8 mm. Inside air film	0.044 0.095 0.154 0.095 0.120	0.508	1.967	38	6
9 mm.	Outside air film Smartboard 9 mm. Air Gap (High E) Smartboard 9 mm. Inside air film	0.044 0.107 0.154 0.107 0.120	0.532	1.879	40	5.7
10 mm.	Outside air film Smartboard 10 mm. Air Gap (High E) Smartboard 10 mm. Inside air film	0.044 0.119 0.154 0.119 0.120	0.558	1.798	41	5.3
12 mm.	Outside air film Smartboard 12 mm. Air Gap (High E) Smartboard 12 mm. Inside air film	0.044 0.143 0.154 0.143 0.120	0.604	1.658	43	4.5
14 mm.	Outside air film Smartboard 14 mm. Air Gap (High E) Smartboard 14 mm. Inside air film	0.044 0.167 0.154 0.167 0.120	0.651	1.535	45	3.7
Wood Plank 8 mm.	Outside air film Smart Wood 8 mm. Air Gap (High E) Smartboard 8 mm. Inside air film	0.044 0.095 0.154 0.095 0.120	0.508	1.967	38	5.6
Brick and Mortar Wall	Outside air film Mortar 10 mm. Brick 80 mm. Mortar 10 mm. Inside air film	0.044 0.018 0.069 0.018 0.120	0.269	3.711	44	-

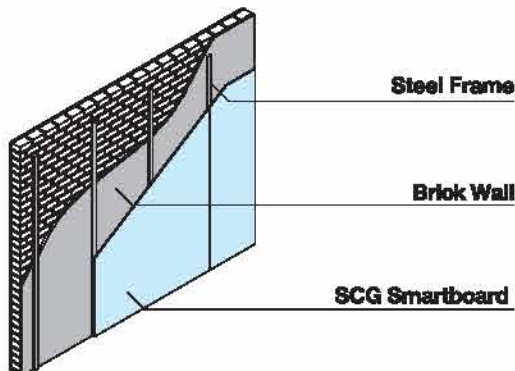


SCG Smartboard and Smartwood delivers advanced performance for external wall. Manufactured from high quality SCG Portland Cement, **SCG External Wall System** is highly durable and easy to maintain, thus a perfect solution to avoid defects in brick work.

It offers substantial savings on time and ease of installation, and allows homeowners to add aesthetic sense and style to their exterior walls.

SCG Cladding System

SCG Smartboard (thickness)	R _T calculation (R _T)		Heat Resistance		Acoustical Control (STC)
			R _T (m ² K/W)	U _T (W/m ² K)	
8 mm.	Outside air film Smartboard 8 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.095 0.148 0.105 0.120	0.513	1.951	45
9 mm.	Outside air film Smartboard 9 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.107 0.148 0.105 0.120	0.524	1.907	45
10 mm.	Outside air film Smartboard 10 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.119 0.148 0.105 0.120	0.536	1.864	46
12 mm.	Outside air film Smartboard 12 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.143 0.148 0.105 0.120	0.560	1.785	47
14 mm.	Outside air film Smartboard 14 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.167 0.148 0.105 0.120	0.584	1.712	47
Wood Plank 8 mm.	Outside air film Smart Wood 8 mm. Air Gap 20 mm. (High E) Brick and Motar Inside air film	0.044 0.095 0.148 0.105 0.120	0.513	1.949	38
Brick and Motar Wall	Outside air film Motar 10 mm. Brick 80 mm. Motar 10 mm. Inside air film	0.044 0.018 0.069 0.018 0.120	0.269	3.711	44



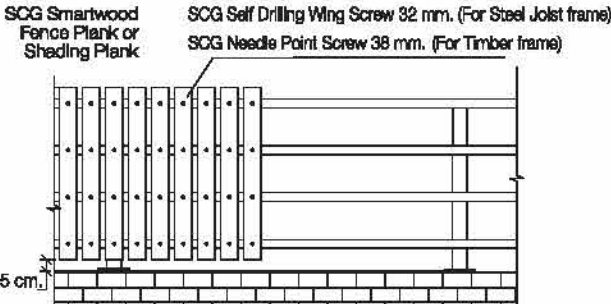
Siding is a great way to improve the appearance of your building **SCG Cladding System** offers a convenient way to renovate your building with new siding.

The new look also comes with a reduction in building temperature as **SCG Cladding System** comes with 20 mm. air gap which allows air circulation. Engineered for exterior applications, **SCG Cladding System** is tough, durable, and water resistant



SCG Shading System

Shading System	Perspective (side view)	Detail	% air flow	Wall gap (cm.)	Shading Efficiency
		SCG Smartwood 4-Inch width fence plank with 2-inch spacing	30%	15	75%
		SCG Smartwood 3-Inch width shading plank installed horizontally with 1-Inch spacing	30%	15	90%
		SCG Smartwood 4-Inch width fence plank Installed 45 degree with 3-Inch spacing	30%	15	100%



Increase more dimension and outstanding to your house, **SCG Smartwood Shading/Fence Plank** can be decorated additionally to external wall, interior balcony, or any of your areas that require sunlight filtered with uniquely modern design

SCG Smart Wall System

Product size and dimension

SCG Smartboard

Application	Thickness (mm.)	Width x Length (mm.)	Installation system	Weight (kg/pc.)	Effective Area (pcs./sq.m.)	Series
Internal and External Wall	6	1220 x 2440 (4'x8') ^②	Concealed ^①	26.7	0.34	2 side Tapered Edge 6, 8, 10, 12 mm. thick
	8	1200 x 2800		40.2	0.30	
		1220 x 2440 (4'x8')		35.6	0.34	
	10	1200 x 2400 ^③		43.5	0.35	
	12	1220 x 2440 (4'x8')		53.6	0.34	
	6	1200 x 2400 ^③	Space lining	26.1	0.35	Squared Edge 6, 8, 9, 10, 12, 14 mm. thick
		1220 x 2440 (4'x8') ^②		27.0	0.34	
	8	1200 x 2400		34.6	0.35	
		1200 x 2800		40.6	0.30	
		1220 x 2440 (4'x8')		36.0	0.34	
	9	1200 x 2400		39.2	0.35	
		1220 x 2440 (4'x8')		40.4	0.34	
	10	1200 x 2400		43.5	0.35	
		1220 x 2440 (4'x8')		44.9	0.34	
	12	1200 x 2400		62.2	0.35	
		1220 x 2440 (4'x8')		53.9	0.34	
	14	1220 x 2440 (4'x8')		62.9	0.34	
	8	1200 x 2800	Space lining	40.0	0.30	4-inch Lining 8 mm. thick

① Use interior only ② Specially for full wall system ③ Made to order

SCG Smartwood Decorative Wall Panel, Modeena

SCG Smartwood Decorative Wall Panel, Modeena series is a wood substitute made from advance technology to create innovative and modern wall design.

• Outstanding and unique

Elaborated design, applied for both interior and exterior that is neatly finished with overlap method between panels to hide screw head.

• Fast and easy to install

With clip lock system, it can be installed on concrete wall or steel structure.

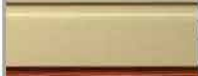
• Moisture and termite resistant



Products	Width x Length x Thickness (cm.)	Weight (kg/pc.)	Effective Area (pcs./sq.m.)
Modeena M1 	30 x 150 x 2.5	10.4	2.38
Modeena M2 	30 x 150 x 2.5	11.4	2.38
Modeena M3 	30 x 150 x 2.3	11.9	2.38

Product size and dimension

SCG Smartwood

Product Application		Name	Width (cm.)	Thickness (mm.)	Length (m.)	Weight (Kg./po.)	Surface	Edges	Color/ Model	Usage Quantity (pos./sq.m.)	
Wood Plank		Colonial	20 (8")	8	3	7.20	Teak texture	Lining Skirt Board Edge 	Ivory	1.90	
		New England	20 (8")	8	3	7.20	Teak texture	1 Side Lining 	Ivory	1.90	
		Natural	15 (6")	8	3	5.40	Teak texture	Non tapered 	Golden Teak	2.67	
			20 (8")	8	3	7.20				2.00	
			20 (8")	8	4	9.70				1.80	
			15 (6")	8	3	6.40				2.67	
		Classic	20 (8")	8	3	7.20	Teak texture	Non tapered 	Red Maka	2.00	
			20 (8")	8	4	9.70				1.90	
			15 (6")	8	3	7.20				1.43	
			20 (8")	8	4	9.70				2.67	
		Primer	20 (8")	8	3	7.20	Teak texture	Non tapered 	Red Oak	2.00	
			20 (8")	8	4	9.70				1.80	
			15 (6")	8	3	5.40				1.43	
			20 (8")	8	4	9.70				2.67	
		Uncolored	20 (8")	8	3	7.20	Timber (Deep wood)	Non tapered 	Uncolor	2.00	
			20 (8")	8	4	9.70				1.80	
			15 (6")	8	3	5.40				2.67	
			20 (8")	8	3	7.20				2.00	
			20 (8")	8	4	9.70				1.43	
			23 (9")	8	3	5.40				2.67	
	Wow	23 (9")	8.5	3.66	8.30	Deep wood texture	Non tapered 	Golden Teak Red Maka Red Pradoo Rosewood	1.33		
		23 (9")	7.5	3.68	9.60				1.33		
		15 (6")	8	3	5.40				2 Side tapered 	Primer	4.44
		15 (6")	8	4	7.20						
		15 (6")	8	4	7.20						
		15 (6")	8	4	7.20						
Decorative Wall Panel		Lap Siding V1	18 (7.2")	10	3	6.01	Smooth surface	Not Grooved 	Uncolor	2.15	
		Lap Siding V2	23.5 (9.4")	10	3	8.13	Smooth surface	4" Grooves 	Uncolor	1.58	
											
Shading Plank		Shading Plank	7.5 (3")	12	3	4.10	Smooth surface	2 Side tapered 	Primer	4.44	
Fence Plank		Fence Plank	7.5 (3")	12	4	5.40	Teak texture	2 Side tapered 	Primer	3.33	
			10 (4")	12	4	7.30				2.50	
			10 (4")	16	4	9.70				2.50	

• Heat Insulation



**Stay Cool
Ceiling Insulation**

Product	Thickness (mm.)	Width (m.)	Length (m.)	Facing Type	Loading Weight on Ceiling (Kgs/m ²)	R-Value (m ² /K/W) (hr.ft ² /BTU)	
Stay Cool 75 mm. Supersave	75	0.60	4.0	Metalized Film	1.0	1.8	10.1
Stay Cool 75 mm. Premium	75	0.60	4.0	Aluminum Foil	1.2	1.8	10.1
Stay Cool 150 mm. Premium	150	0.60	4.0	Aluminum Foil	2.0	3.6	20.3

• Heat and Sound Insulation



**Thermacoustic
Wall Insulation**

Fire Test :

Bs476 Part 6&7	Class0
ASTM E 84	
Flame Spread	25
Smoke Develop	50

Standard Product	Density (Kg/m ³)	Thickness (mm.)	Size (m. x m.)	k-Value (W/m.K) (BTU-in/hr.ft ² F)		R-Value (m ² /K/W) (hr.ft ² /BTU)	
TMA 50	24	50	0.40x10.0	0.035	0.247	1.4	8.1
TMA 75	24	75	0.60x10.0	0.035	0.247	2.1	12.2
TMA 90	24	90	1.20x10.0	0.035	0.247	2.6	14.6

• Fire Insulation



**Hi-Temp
Wall Insulation**

Standard Product	Density (Kg/m ³)	Thickness (mm.)	Size (m. x m.)	k-Value (W/m.K) (BTU-in/hr.ft ² F)		R-Value (m ² /K/W) (hr.ft ² /BTU)	
Hi-Temp 3850	38	50	1.22x2.44	0.033	0.229	1.563	8.89

• Sound Absorption



**Zandera
Decorative Wall Panel**

Color	Size (m. x m.)	Thickness (mm.)
	Standard Size	25 mm.
	0.60 x 0.60	
	0.60 x 1.20	
	Deco Size	
	0.10 x 0.30	
	0.10 x 0.60	
	0.20 x 0.30	
	0.20 x 0.60	

Product	Sound Absorption Coefficient (SAC)							
	Thickness (mm.)	125	250	500	1000	2000	4000	NRC
ZANDERA™	25	0.10	0.45	0.86	0.94	0.84	0.81	0.75



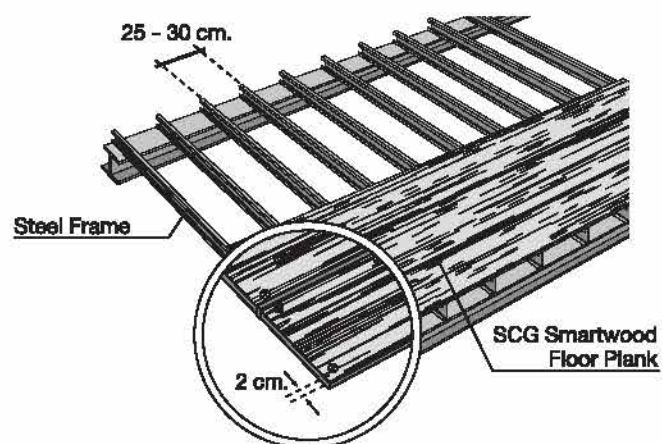
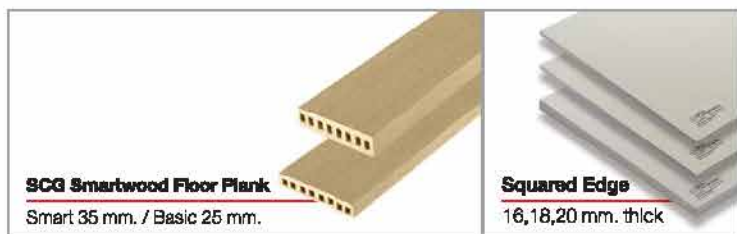
FLOOR

SCG SMART FLOOR SYSTEM

SCG Floor System

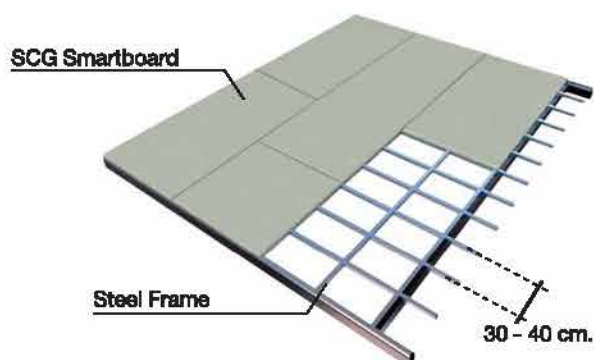


SCG Smartwood Floor

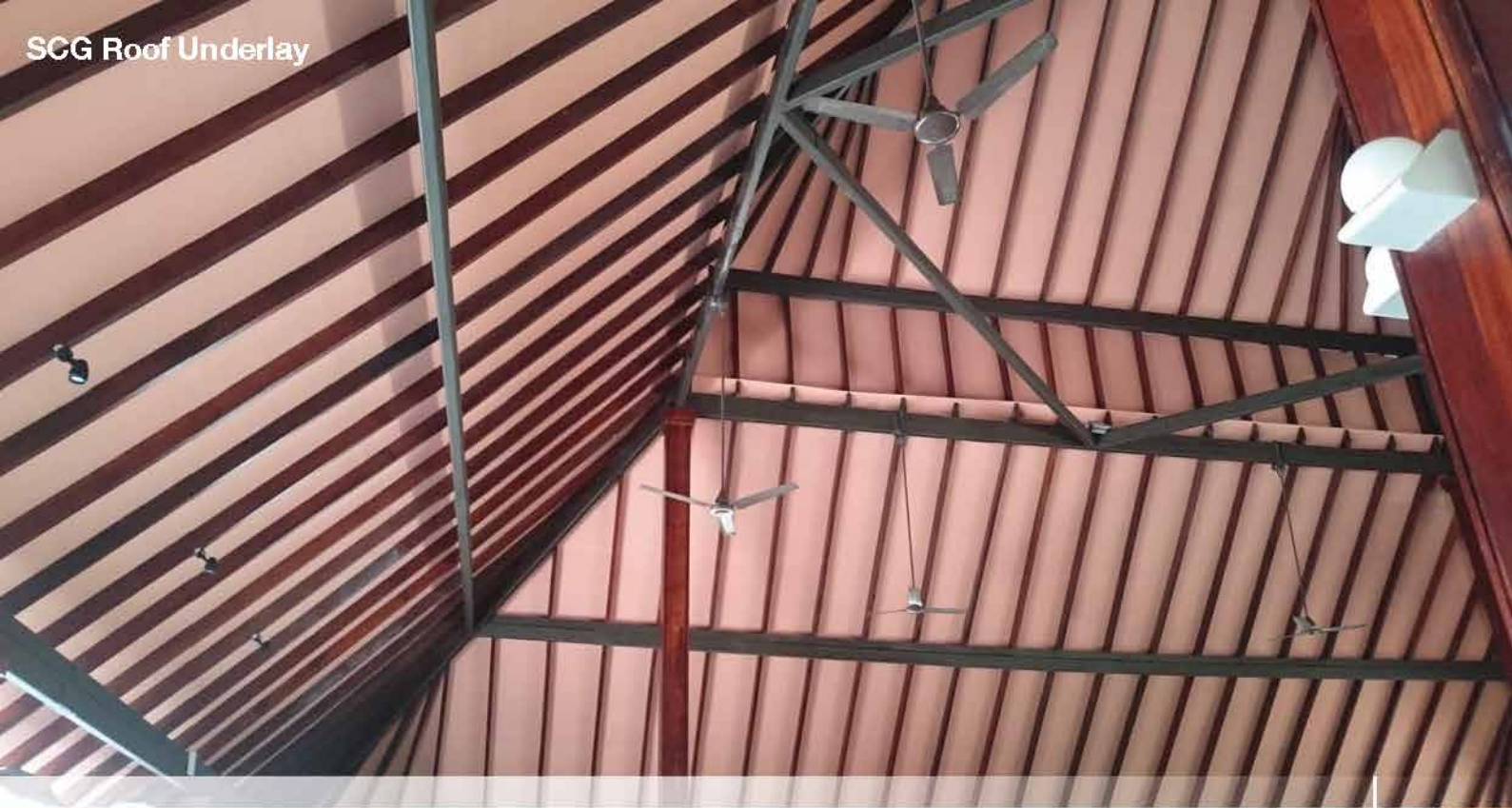


Details	Steel Frame Spacing (cm.)	Type of Building	Live Load (kg/m ²)
Install SCG Smartboard 16 mm.	40	House, Residence	150
Install SCG Smartboard 18-20 mm.	40	Hotel / Dormitory	200
	40	Office / Bank	250
	40	School / University	300
	30	Department store / Cinema / Hall / Restaurant	400
	30	Cargo / Museum Plant / Publisher	500
SCG Smartwood Floor Plank Basic 25 mm.	25-30	House, Residence	150

SCG Smartboard Floor



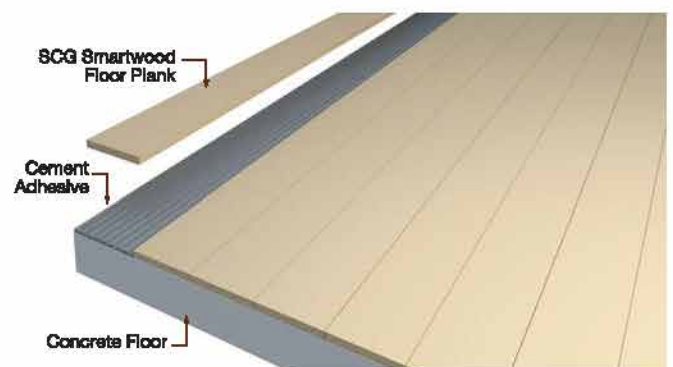
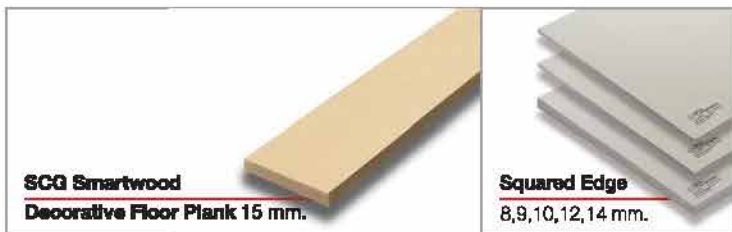
SCG Floor System is easy to work with and capable of withstanding up to 500 kg./sqm. with SCG Smartboard and 150 kg./sqm. with SCG Smartwood making it perfect for construction and renovation works that need speediness and high impact strengths.



SCG Floor/Roof Underlay System

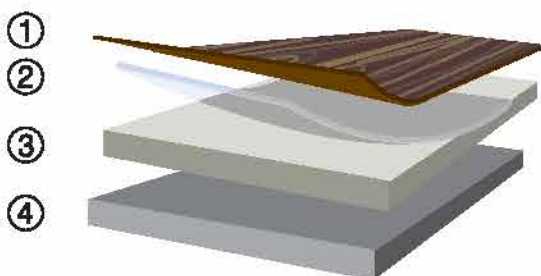


SCG Smartwood Decorative Floor





SCG Floor Underlay



1. Laminate wood floor, parquet floor tiles, and rubber floor tiles
2. Underlying foam
3. **SCG Smartboard**
4. Concrete floor

SCG Smartboard also can be applied as roof underlay /subroof to reduce heat and prevent leakage from roof into your house.

Laminate wood floor, parquet floor tiles, and ceramic tiles are installed over **SCG Smartboard** , providing a perfect alternative to plywood.

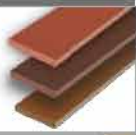
Normal concrete floor can be decorated on top with **SCG Smartboard Decorative Floor Plank** by using cement adhesive to attach. No steel structure is needed.

Product size and dimension

SCG Smartboard

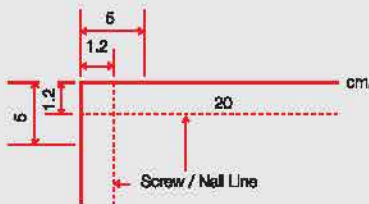
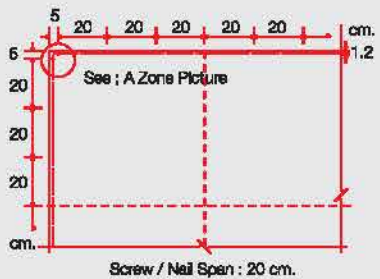
Application	Thickness (mm.)	Width x Length (mm.)	Installation system	Weight (kg/ps.)	Effective Area (pos./sq.m.)	Series
Underlay	8	1200 x 2400 1200 x 2800 1220 x 2440 (4'x8')	Space lining No space lining	34.8 40.8 36.0	0.35 0.30 0.34	Squared Edge 8, 9, 10, 12, 14 mm. thick 
	9	1200 x 2400 1220 x 2440 (4'x8')		39.2 40.4	0.35 0.34	
	10	1200 x 2400 1220 x 2440 (4'x8')		43.5 44.9	0.35 0.34	
	12	1200 x 2400 1220 x 2440 (4'x8')		52.2 53.9	0.35 0.34	
	14	1220 x 2440 (4'x8')		62.9	0.34	
Flooring	16	1200 x 2400 1200 x 3000 1220 x 2440 (4'x8')	No space lining	69.8 87.0 72.0	0.35 0.28 0.34	Squared Edge 16, 18, 20 mm. thick 
	18	1200 x 2400 1220 x 2440 (4'x8')		78.3 81.0	0.35 0.34	
	20	1200 x 2400		87.0	0.35	

SCG Smartwood

Product Application	Name	Width (cm.)	Thickness (mm.)	Length (m.)	Weight (Kg./po.)	Surface	Edges	Color/ Model	Usage Quantity (pos./sq.m.)
   	T-Clip Floor Plank	20 (8")	25	3	22.6	Burr wood texture	2 Side tapered	Brown Oak /Natural Beech /Mahogany	1.67
	Smart	15 (6") 20 (8")	35	3	18.7 24.9	Burr wood texture	2 Side tapered	Cream Primer	2.22 1.67
	Basic	10 (4") 15 (6") 20 (8")	25	3	8.7 12.7 17.3	Burr wood texture	2 Side tapered	Cream Primer	3.33 2.22 1.67
	Decorative Floor	15 (6")	15	3	10.12	Burr wood texture	2 Side tapered	Cream Primer	2.22

Fixing a nail or screw on SCG Smartboard

1. Fix on SCG Smartboard every 20 cm. and away from the edge 1.2 cm. with nail or screw.
2. Wooden Studs ; use hammer to nail down. Steel Studs ; use electric drill not more than 2500 rpm. to drill the SCG screw down.



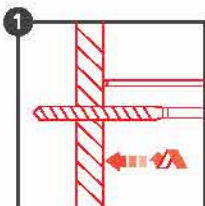
A Zone Picture

Installing SCG Smartboard Ceiling and Wall

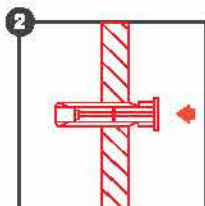
Product	Thickness (mm.)	Installation type	Joining Accessory	Fixing Accessory
Internal / External Ceiling				
Lite	3.2 - 3.5	SCG Smartboard Polyurethane Joint Sealant	Fix with 1.5 x 3.0 inch wooden studs. With maximum stud span of 80 cm.	1, 1.5 inch Wood nail
Squared Edge	4.0		Fix with 0.65, thick Galvanize Steel Studs of 100 and 40 cm. respectively. Fix with 1.2 - 3.2 mm. steel	SCG Self-Drilling Screw 18 mm. (Counter sunk head)
Ventilated	4.0			
Wood Grain	4.0			
Ventilated Wood Grain	4.0			
3-Inch Square Lining	4.0			
Ventilated 3-Inch Square Lining	4.0		Fix with 0.55 mm. thick SCG Smartboard C 74, U 76 Galvanize Frame without pre-drilling with the maximum stud span of 80 cm.	SCG Needle Point Screw 23 mm. (Counter sunk head)
Squared Edge	4.0 - 8.0			
Internal Wall				
Squared Edge	8.0 - 14.0	SCG Grumcrete	Fix with 1.2 - 3.2 mm. steel studs (C 76) without pre-drilling with the maximum stud span of 80 cm.	SCG Self Drilling Wing Screw 32 mm. (Counter sunk head)
4-Inch Square Lining	8.0			
External Wall				
Squared Edge	8.0 - 14.0			
Floor				
Squared Edge	16.0 - 20.0		Fix with 1.2 - 3.2 mm. steel studs without pre-drilling with the maximum stud span of 40 cm.	Self Drilling Screw 45 mm. (Counter sunk head)

*Please study SCG Smartboard Installation manual for more information.

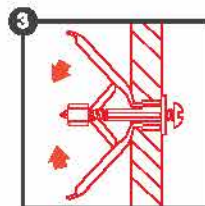
Can be easily done by sunking butterfly-wing plastic hook in the ceiling or wall in the point that you wish to hang your object, simply follow these steps



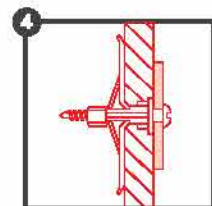
Mark and Drill your desire point



Sunk butterfly-wing plastic hook into the ceiling or wall hole



Drill the screw into the butterfly-wing plastic hook



When the screw is completely installed the butterfly-wing will be tightly fix with the SCG Smartboard

Recommendations

1. Use the table below to estimate the weight bearing level of different thickness and usage of SCG Smartboard.
2. When hanging heavy weight objects, it is advised to fix your object in the position that is on the studs, the maximum weight stand will also vary depending on the strength of different studs.

Product	Application	Accessory	Maximum Weight Stand (kg.)
SCG Smartboard 3.5 mm. thick	Ceiling	butterfly-wing plastic hook PT - 5 with drilling screw	5
SCG Smartboard 4 mm. thick	Ceiling	butterfly-wing plastic hook PT - 5 with drilling screw	7
SCG Smartboard 8 mm. thick	Ceiling	butterfly-wing plastic hook PT - 13 with drilling screw	10
SCG Smartboard 8 mm. thick	Wall	butterfly-wing steel hook PT - 13 with drilling screw	80

Painting

Chose your own color shade

1. Use old cement primer paint to increase the life time your finishing paint.
2. Use 100% Acrylic paint 1 - 2 times for complete cover up of the original surface color. (the durability of the paint depends on the quality of your chosen paint)

Recommended Equipments and Studs to Install **SCG** Smartwood

Product	Application	Accessory	Package Size
Wood Plank	Interior	SCG Needle Point Screw 23 mm. 	500 screws/box
	Exterior	SCG Self Drilling Wing Screw 28.5 mm. 	250 screws/box
	Brick Walls or Old Brick Walls	SCG C-Line 	1 strip
		SCG Brackets 	60 pcs./pack
		SCG Needle point Screw 38 mm. with SCG plastic Insert 37 mm. 	250 pcs./box
Eaves Liner	Interior and Exterior	SCG Self Drilling Screw 23 mm. 	500 pcs./box
Fence Plank/ Shading Plank	Interior and Exterior	SCG Self Drilling Wing Screw 32 mm. 	500 pcs./box
Floor Plank	Interior and Exterior	Self Drilling Wing Screw 45 mm. 	Available in tropical store

Equipments for Finishing **SCG** Smartwood

SCG Corner Post Cement

Use to cover inner and outer corners of Wood Plank
Dimension: 7.5x7.5x800x0.8 cm.
Weight: 5.2 Kg.
Color: Cement
Usage: 0.33 pcs./m.



SCG Smartwood Acrylic Paint Sealant

To seal joints and cover screw heads for both external and internal
Size: 310 ml.
Weight: 0.5 Kg.
Color: White
Usage: 15-20 sq.m/tube



SCG Acrylic Paint for Wood Plank

100% water-based paint to finish screw heads or joints
Weight: 1 Kg.
Color: Golden teak, Red maka, Walnut, Ivory, Sky, Red oak, Brown oak (for eaves liner)
Color type: Matt
Usage: 7-10 sq.m/bucket



SCG Acrylic Paint for Fiber Cement

100% water-based acrylic paint for any fiber cement wood
Weight: 3.5 Kg.
Color: Cream primer
Usage: 60 sq.m/bucket
Weight: 3 Kg.
Color: Natural beech, Mahogany, Redwood, Dark oak
Color type: Glossy, Matt
Usage: 20-25 sq.m/bucket (2-3 rounds)



SCG Acrylic Paint for Stair Plank

Primer for coating before paint
Weight: 2 Kg.
Color type: Brown
Usage: 10-15 sq.m/bucket
Acrylic paint for Stair Plank
Weight: 3.6 Kg.
Color: Redwood
Usage: 20-25 sq.m/bucket (2-3 rounds)
Shield gloss to cover the acrylic paint
Weight: 2 Kg.
Color type: Clear Glossy
Usage: 20-25 sq.m/bucket



SCG Acrylic Paint for Floor Plank

100% water-based acrylic paint especially for Floor Plank. Resistant to scratch from walking.
Weight: 3.6 Kg.
Color: Natural beech, Mahogany, Dark oak, Redwood
Color type: Glossy, Matt
Usage: 20-25 sq.m/bucket (2-3 rounds)



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, tapping, drilling and sanding. These products should not be installed in areas that are higher than 50 cm. from the ground.



CAUTION

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 dilute 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" (ASLT 1013-40) and criteria for designing building prescribed by the ministerial regulation No. 4 B.E. 2527, which is advised from "Building Control Act" B.E. 2522. Using the products in a manner that does not meet these criteria will directly and completely hold the contractor accountable. Our installation manuals are constantly updated and available on www.scgbuildingmaterials.com

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