

StructuralCompTM FRP Grating Technical Data Documentation

BRIDGES I BOARD

V3.6 / Release Date: 12/07/15

fibre T reinforced plastic composites

Structura

Contents



Introduction
Contact Us 4
Manufacturing
Moulded Grating
Resin System
Moulded Grating Sizes 8
Moulded Grating Sizes Details
Surface Type14
Corrosion Guide
Uniform Load Deflection Table17
Line Load Deflection Table
Installation
Material Safety Data Sheet

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PATENTS / PATENTS PENDING

Parts of the SISCo-FC[™] System are protected by either patents, or patents pending. Individual components are protected by either patents, or patents pending. Fixing methodology is protected by patents, or patents pending.





Manufacturing





Products designed, manufactured and supplied by SIS embody state of the art technology and are engineered by our teams to deliver enhanced performance and sustainably effective operation for customers worldwide. All our products are manufactured to the highest industry standards, following strict quality assurance guidelines. With many employees dedicated to production, quality product and technical expertise is ensured at all times. Excellent long term relationships with our key suppliers of raw materials and components provide confidence in material quality as well as sustainable and efficient manufacturing and supply chain processes.

The close relationship with our research and development division ensures that SIS manufacturing teams can react quickly and professionally to customer needs. SIS has built a reputation based on excellent customer service, high quality manufacturing and on providing the right solution in sustainable product design and manufacturing. Continuous improvement of equipment design, materials and manufacturing technology ensures SIS maintains its capability of offering clients the latest and most commercially viable sustainable products available. SIS also works with clients to develop specific solutions to meet their unique needs through the application of research and development efforts in a partnering relationship.

We manufacture and supply products from materials that include:

- Recycled Plastic
- Recycled Plastic Panel
- Fibreglass Reinforced Plastic
- Recycled Wood Plastic Composite
- Recycled Rubber
- Aluminium / Recycled Plastic Composite

With a global network of offices and manufacturing facilities, along with projects in Africa, the Middle East, Asia, Australia and the Pacific Rim, SIS can be trusted to provide easy, efficient and seamless supply to almost all places on earth.



Moulded Grating



StructuralComp FRP moulded grating is made of vertical and horizontal continuous fiberglass, fully soaked in unsaturated resins giving perfect bi-directional mechanical properties. Combining unmatched corrosion resistance with strength, long design life and safety, moulded grating provides the ultimate in reliable performance, even in the most demanding corrosive conditions. SIS offers the widest selection of panel sizes, colours and slip resistant surfaces meaning clients can order FRP grating to suit any specific application.

SIS can also assist with design, drafting, engineering and construction of any pedestrian structure large or small.





There are three different types of resins - Isophthalic, Vinyl Ester & Orthophthalic that are used for manufacturing all types of grating.

Resin Type	Resin Base	Description	Corrosion Resistance	Max.Oper.Temp.
Type V	Vinyl Ester	Superior Corrosion Resistance and Fire Retardant	Excellent	110°C
Туре І	Isophthalic	Industrial Grade Corrosion Resistence and Fire Retardant	Very Good	105°C
Туре О	Orthophthalic	Moderate Corrosion Resistence and Fire Retardant	Normal	70 °C

MATERIAL ADVANTAGES

- High Level of Corrosion Resistance
- Anti-Slip Surfaces
- Light Weight
- Various Sizes and Colours Available
- Easy Installation

- Virtually Maintenance Free
- High Loaded Strength
- Low Energy Consumption in Manufacture
- Low Lifecycle Costs



Moulded Grating Sizes



Item	Thickness (mm)	Mesh Size (mm)	Vertical Bar Thickness mm	Panel Size Available (mm)	Weight (kg/ sqm)	Open Area (%)	Legend
	Square Me	sh		-			
1	13	50x50	7/5	1220x3660	5.8	78	
2	20	38x38	7/5	1220x3660	9.2	69	
3	25	38x38	7/5	1220x3660	12.49	68	
4	25	40x40	7/5	1247x4047	12.2	67	
5	30	38x38	7/5	1524.5x4000.5 1220x3660	14.89	68	
6	30	40x40	7/5	1007x4047	14.2	67	
7	38	38x38	7/5	1525x4000.5 1220x3660 997x3660	19.1	68	
8	40	40x40	7/5	1247x4047 1007x3007 1007x4047	19.34	67	
9	50	50x50	7/5	1525x4025 1220x3660 1220x4025	21.5	78	
10	63	38x38	11.5/9	1220x3660	52	54	
	Rectangula	ır Mesh					
11	25	25x100	9.8/5	1220x3660	13.52	68	all a
12	38	38x152	7/5	572x3660	17.5	77	
13	38	25.4x152.4	7/5	1220x3660	21.4	56	
14	38	38.1x101.6	7/5	1220x3660	16.5	74	and a
	Mini Mesh						
15	22	40x40(20x20)	7/5	1247x4047	16.3	42	
16	25	40x40(20x20)	7/5	1007x4047	16.8	42	
17	30	40x40(20x20)	7/5	1007x4047 1007x3007	18.8	42	1.551
18	40	40x40(20x20)	7/5	1247x4047	23.78	42	
19	38	38x38(19x19)	7/5	1220x3660	23.65	41	
	Micro Mes	h					
20	22	40x40(8x8)	7/5	1247x4047	16.78	34	44444
21	30	40x40(8x8)	7/5	1247x4047	19.73	34	L'SSE

Moulded Grating Sizes Details



Panel No.1 13mm / 50x50mm. Panel Size Available: 1220mm x 3660mm						
Plan View	Elevation View	Data				
50mm 	50mm 7mm± 13mm 50mm 13mm 5mm±	Vertical Load Bar: 7/5 Open Area: 78% Weight: 5.8kg/m²				

Panel No.2 20mm / 38x38mm. Panel Size Available: 1220mm x 3660mm							
Plan View	Elevation View	Data					
^{38mm} 	^{38mm} 7mm ± 20mm 5mm ±	Vertical Load Bar: 7/5 Open Area: 69% Weight: 9.2kg/m²					

Panel No.3 25mm / 38x38mm. Panel Size Available: 1220mm x 3660mm							
Plan View	Elevation View	Data					
^{38mm} 	38mm 7mm ± 1 25mm ± 5mm ±	Vertical Load Bar: 7/5 Open Area: 68% Weight: 12.49kg/m²					





Panel No.4 25mm / 40x40mm. Panel Size Available: 1247mm x 4047mm Plan View **Elevation View** Data 40mm 40mm 7mm± Vertical Load Bar: 7/5 Î 40mm Open Area: 67% ____25mm T IJ τ Τ Т Т Ĵ 5mm± Weight: 12.2kg/m² ľ U U

Panel No.5 30mm / 38x38mm. Panel Size Available: 1524.5mm x 4000.5mm 1220mm x3660mm							
Plan View	Elevation View	Data					
^{38mm} 	38mm 7mm± 30mm 30mm 5mm±	Vertical Load Bar: 7/5 Open Area: 68% Weight: 14.89.8kg/m²					

Panel No.6 30mm / 40x40mm. Panel Size Available: 1007mm x 4047mm						
Plan View	Elevation View	Data				
	40mm 7mm± 30mm 5mm±	Vertical Load Bar: 7/5 Open Area: 67% Weight: 14.2kg/m²				

Panel No.7 38mm / 38x38mm. Panel Size Available: 1525mm x 4000.5mm,1220mm x 3660mm, 997mm x 3660mm





Panel No.8 40mm / 40x40mm. Panel Size Available: 1247mm x 4047mm ,1007mm x 3007mm, 1007mm x 4047mm



Panel No.9 50mm / 50x50mm. Panel Size Available: 1525mm x 4025mm, 1220mm x 3660mm, 1220mm x 4025mm

Plan View	Elevation View	Data
	50mm 7mm± 50mm 50mm	Vertical Load Bar: 7/5 Open Area: 78% Weight: 21.5kg/m²

Panel No.10 63mm / 38x38mm. Panel Size Available: 1220mm x 3660mmPlan ViewElevation ViewData38mm38mm11.5mm±Vertical Load Bar: 11.5/90pen Area: 54%0pen Area: 54%Weight: 52kg/m²

Panel No.11 25mm / 25x100mm. Panel Size Available: 1220mm x 3660mm							
Plan View	Elevation View	Data					
	25mm 9.8mm± 25mm 25mm 25mm	Vertical Load Bar: 9.8/5 Open Area: 68% Weight: 13.52kg/m²					













Surface Type



Grating with Concave surface, Grit Surface and Cover.

1.NORMAL GRATING SURFACE DESIGN



No.1 Concave Surface Concave grating slip resistance



No.2 Smooth Level smooth finish



No.3 Die Inside Pave Sand superior slip resistance



No.4 Die Outside Pave Sand superior slip resistance

2.COVERED GRATING TYPE



No.1 Mirror Type Cover Easy to Clean



No.2 Crit Cover Surface Anti Slip



No.3 Pattern Plate Type Smooth with Mid level Anti Slip



Corrosion Guide



Corrosion Resistance						
	Vinyl Ester Isophthalic		Orthophthalic			
Chemical Type	Concentration (%)	Max, oper, temp °C	Concentration (%)	Max, oper, temp °C	Concentration (%)	Max, oper, temp °C
Acetic Acid	50	82	50	52	5	25
Aluminum Hydroxide	100	82	100	71	ALL	-
Ammonium Chloride	ALL	99	ALL	77	ALL	-
Ammonium Bicarbonate	50	70	15	52	ALL	-
Methacrylic Acid	99	35	-	-	-	-
Ammonium Hydroxide	28	38	28	N/R	ALL	N/R
Ammonium Sulphate	ALL	99	ALL	77	ALL	-
Benzene	100	40	ALL	N/R	ALL	N/R
Benzoic Acid	SAT	99	SAT	66	ALL	25
Borax	SAT	99	SAT	77	SAT	45
Calcium Carbide	ALL	82	ALL	77	ALL	-
Calcium Nitrate	ALL	99	ALL	82	ALL	-
Carbon Tetrachloride	100	40	100	N/R	100	N/R
Cholrine, Dry Gas	-	99	-	60	-	N/R
Chlorine Water	SAT	93	SAT	27	SAT	N/R
Chromic Acid	10	65	5	21	5	N/R
Citric Acid	ALL	99	ALL	77	ALL	25
Calcium Chloride	ALL	99	ALL	77	ALL	40
Copper Cyanide	ALL	99	ALL	77	ALL	25
Copper Nitrate	ALL	99	ALL	77	ALL	-
Ethanol	10	82	50	24	10	25
Ethylene Glycol	100	93	100	32	100	40
Hydrofluoric Acid	10	65	-	-	-	-
Ferric Chloride	ALL	99	ALL	77	ALL	40
Ferrous Chloride	ALL	99	ALL	77	ALL	30
Formaldehyde	37	60	50	24	25	30
Gasoline	100	82	100	24	100	35
Glucose	100	99	100	77	ALL	-
Glycerine	100	99	100	66	100	-
Hydrobromic Acid	50	65	50	49	18	-
Hydrochloric Acid	37	65	37	24	10	30
Hydrogen Peroxide	30	65	5	38	5	N/R
Lactic Acid	ALL	99	ALL	77	ALL	25
Lithium Chloride	SAT	99	SAT	66	ALL	-
Magnesium Chloride	ALL	99	ALL	77	ALL	40
Magnesium Nitrate	ALL	99	ALL	60	ALL	30
Magnesium Sulphate	ALL	99	ALL	77	ALL	40
Mercuric Chloride	100	99	100	66	100	40



Corrosion Resistance						
	Vinyl	Ester	Isoph	thalic	Orthop	hthalic
Chemical Type	Concentration (%)	Max, oper, temp °C	Concentration (%)	Max, oper, temp °C	Concentration (%)	Max, oper, temp °C
Mercurous Chloride	ALL	99	ALL	60	ALL	40
Nickel Chloride	ALL	99	ALL	77	ALL	40
Nickel Sulphate	ALL	99	ALL	77	ALL	40
Nitric Acid	20	54	20	21	20	N/R
Oxalic Acid	ALL	99	ALL	24	ALL	N/R
Perchloric Acid	30	38	10	N/R	10	N/R
Phosphoric Acid	100	99	100	49	80	N/R
Potassium Chloride	ALL	99	ALL	77	ALL	40
Potassium Dichromate	ALL	99	ALL	77	ALL	25
Potassium Nitrate	ALL	99	ALL	77	ALL	40
Potassium Sulphate	ALL	99	ALL	77	ALL	40
Propylene Glycol	ALL	99	ALL	77	ALL	40
Sodium Acetate	ALL	99	ALL	71	ALL	40
Sodium Bisulphate	ALL	99	ALL	77	ALL	-
Sodium Bromide	ALL	99	ALL	77	5	-
Sodium Cyanide	ALL	99	ALL	77	5	N/R
Sodium Hydroxide	25	82	N/R	N/R	N/R	N/R
Sodium Nitrate	ALL	99	ALL	77	ALL	40
Sodium Sulphate	ALL	99	ALL	77	ALL	40
Stannic Chloride	ALL	99	ALL	71	ALL	40
Sulfuric Acid	50	80	25	24	10	-
Tartaric Acid	ALL	99	ALL	77	ALL	-
Vinegar	100	99	100	77	ALL	-
Methanol	10	84	N/R	N/R	N/R	N/R
Sea Water	ALL	99	ALL	70	ALL	45
Water-Distilled	100	82	100	77	ALL	30
Zine Nitrate	ALL	99	ALL	77	ALL	40
Zine Sulfate	ALL	99	ALL	77	ALL	40

REMARKS:

- 1. ALL refers to any concentration, SAT refers to saturated solution, N/A means not recommended and also means no information is available.
- 2. Tests from resin manufacturers indicate that the resin can withstand the corrosion conditions listed above.
- 3. If StructuralComp FRP products are used in other environments not mentioned above, please contact us, 1300 26 10 74.

Uniform Load Deflection Table





	Panel No.01 H25 Mesh Size 38mm x 38mm												
Load		Span in mm Load in kg/m2											
Span	100	00 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.24	0.49	0.73	1.22	1.82	2.43	3.65	4.86	3106				
700	0.89	1.77	2.66	4.44	6.65	8.87	13.31		1584				
900	2.35	.35 4.69 7.04 11.73											

	Panel No.02 H25 Mesh Size 40mm x 40mm												
Load		Span in mm Load in kg/m2											
Span	100	100 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.26	0.51	0.77	1.28	1.92	2.56	3.84	5.11	2601				
700	0.94	1.89	2.83	4.72	7.08	9.43	14.15		1333				
900	2.53	5.06	7.58	12.64					812				

	Panel No.03 H30 Mesh Size 38mm x 38mm												
Load		Span in mm Load in kg/m2											
Span	100	.00 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.18	0.36	0.55	0.91	1.36	1.82	2.73	3.64	3293				
700	0.64	1.29	1.93	3.22	4.83	6.44	9.66	12.89	1680				
900	1.72	3.43	5.15	8.59	12.89				1016				
1100	3.84	3.84 7.67 11.51											

	Panel No.04 H30 Mesh Size 40mm x 40mm													
Load		Span in mm Load in kg/m2												
Span	100	00 200 300 500 750 1000 1500 2000 Max Rec.Load												
500	0.17	0.33	0.5	0.83	1.25	1.67	2.5	3.33	2907					
700	0.61	1.21	1.82	3.03	4.54	6.05	9.08	12.1	1481					
900	1.6	3.19	4.79	7.98	11.97	15.96			897					
1100	3.46	6.92	10.38						603					

	Panel No.05 H38 Mesh Size 38mm x 38mm												
Load		Span in mm Load in kg/m2											
Span	100	00 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.07	0.15	0.22	0.36	0.54	0.73	1.09	1.45	4747				
700	0.25	0.5	0.75	1.26	1.89	2.51	3.77	5.03	2422				
900	0.65	1.3	1.95	3.25	4.86	6.51	9.76	13.02	1465				
1100	1.44	2.88	4.31	7.19	10.79	14.38			981				
1300	2.79	5.58	8.38	13.96					702				



	Panel No.06 H50 Mesh Size 50mm x 50mm												
Load		Span in mm Load in kg/m2											
Span	100	100 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.04	0.08	0.11	0.19	0.29	0.38	0.57	0.76	10769				
700	0.13	0.26	0.39	0.66	0.99	1.32	1.97	2.63	5494				
900	0.35	0.69	1.04	1.74	2.6	3.47	5.21	6.94	3323				
1100	0.76	1.51	2.27	3.78	5.67	7.57	11.35		2225				
1300	1.45	2.89	4.34	7.23	10.84	14.46			1593				
1500	2.53	5.07	7.6	12.67					1196				

Panel No.07 H25 Mesh Size 25mm x 100mm

Load		Span in mm Load in kg/m2											
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load				
500	0.16	0.31	0.47	0.78	1.18	1.57	2.35	3.14	4752				
700	0.59	1.17	1.76	2.93	4.39	5.85	8.78	11.71	2425				
900	1.56	3.12	4.68	7.79	11.69				1467				
1100	3.43	6.87	10.3						982				

P	anel	No.()8 F	138	Mesh	Size	38mm x	152mm	
									_

Load		Span in mm Load in kg/m2											
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load				
500	0.05	0.09	0.14	0.23	0.34	0.45	0.68	0.91	8368				
700	0.15	0.3	0.45	0.75	1.13	1.5	2.25	3	4269				
900	0.38	0.76	1.14	1.9	2.86	3.81	5.71	7.61	2583				
1100	0.83	1.66	2.49	4.15	6.23	8.3	12.45		17.29				
1300	1.59	3.18	4.78	7.96	11.94				1238				
1500	2.79	5.59	8.38	13.97					930				

	Panel No.09 H30 Mesh Size 20mm x 20mm mini												
Load		Span in mm Load in kg/m2											
Span	100	00 200 300 500 750 1000 1500 2000 Max Rec.Load											
500	0.11	0.22	0.33	0.54	0.82	1.09	1.63	2.18	4123				
700	0.38	0.77	1.15	1.92	2.88	3.84	5.76	7.68	2104				
900	1.02	2.04	3.06	5.11	7.66	10.21			1273				
1100	2.23	2.23 4.45 6.68 11.13 852											

	Panel No.10 H38 Mesh Size 19mm x 19mm mini												
Load		Span in mm Load in kg/m2											
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load				
500	0.06	0.11	0.17	0.28	0.42	0.55	0.83	1.11	7182				
700	0.19	0.38	0.57	0.95	1.42	1.9	2.85	3.8	3664				
900	0.49	0.98	1.46	2.44	3.66	4.88	7.31	9.75	2217				
1100	1.05	2.11	3.16	5.26	7.89	10.53			1484				
1300	2.01	4.03	6.04	10.07					1062				
1500	3.53	7.06	10.59						798				

Line Load Deflection Table





	Panel No.01 H25 Mesh Size 38mm x 38mm											
Load		Span in mm Load in kg/m2										
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load			
500	0.78	1.56	2.33	3.89	.84	7.78	11.67		1213			
700	2.03	4.06	6.09	10.15					867			
900	4.17	4.17 8.34 12.51										

Panel No.02 H25 Mesh Size 40mm x 40mm										
Load		Span in mm Load in kg/m2								
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load	
500	0.81	1.62	2.44	4.06	6.09	8.12	12.18		1024	
700	0.94	2.15	4.3	6.45	10.75				731	
900	4.51	9.02	13.53						569	

Panel No.03 H30 Mesh Size 38mm x 38mm											
Load	Span in mm Load in kg/m2										
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.58	1.16	1.75	2.91	4.36	5.82	8.73	11.64	1386		
700	1.47	2.95	4.42	7.36	11.04	14.73			919		
900	3.05	6.11	9.16	15.26					715		
1100	5.58	11.16							497		

Panel No.04 H30 Mesh Size 40mm x 40mm											
Load	Span in mm Load in kg/m2										
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.53	1.07	1.6	2.67	4	5.33	8	10.67	1136		
700	1.38	2.76	4.14	6.91	10.36	13.81			811		
900	2.83	5.67	8.5	14.17					631		
1100	5.04	10.09	15.13						516		

Panel No.05 H38 Mesh Size 38mm x 38mm											
Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.23	0.46	0.7	1.16	1.74	2.32	3.48	4.64	1854		
700	0.57	1.15	1.72	2.87	4.31	5.75	8.62	11.49	1325		
900	1.16	2.31	3.47	5.79	8.68	11.57			1030		
1100	2.09	4.18	6.28	10.46					843		
1300	3.44	6.87	10.31						716		



Panel No.06 H50 Mesh Size 50mm x 50mm											
Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.12	0.24	0.37	0.61	0.92	1.22	1.83	2.44	4206		
700	0.3	0.6	0.9	1.5	2.26	3.01	4.51	6.02	3004		
900	0.62	1.23	1.85	3.09	4.63	6.17	9.26	12.34	2337		
1100	1.1	2.2	3.3	5.5	8.26	11.01			1912		
1300	1.78	3.56	5.34	8.9	13.35				1618		
1500	2.7	5.41	8.11	13.51					1402		

Panel No.07 H25 Mesh Size 25mm x 100mm

Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.5	1	1.51	2.51	3.77	5.02	7.53	10.04	1856		
700	1.34	2.38	4.01	6.69	10.03	13.38			1326		
900	2.77	4.54	8.31	13.86					1031		
1100	5	9.99							844		

Panel No.08 H38 Mesh Size 38mm x 152mm											
Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.14	0.29	0.43	1.72	1.09	1.45	2.17	2.9	3269		
700	0.34	0.69	1.03	1.72	2.57	3.43	5.15	6.86	2335		
900	0.68	1.35	2.03	3.38	5.08	6.77	10.15	13.54	1816		
1100	1.21	2.41	3.62	6.04	9.06	12.07			1486		
1300	1.96	3.92	5.88	9.8	14.7				1257		
1500	2.98	5.96	8.94	14.9					1090		

Panel No.09 H30 Mesh Size 20mm x 20mm mini											
Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.35	0.7	10.4	1.74	2.61	3.48	5.22	6.96	1611		
700	0.88	1.76	2.63	4.39	6.59	8.78	13.17		1150		
900	1.82	3.63	5.45	9.08	13.62				895		
1100	3.24	6.48							732		

Panel No.10 H38 Mesh Size 19mm x 19mm mini											
Load		Span in mm Load in kg/m2									
Span	100	200	300	500	750	1000	1500	2000	Max Rec.Load		
500	0.18	0.36	0.53	0.89	1.33	1.77	2.66	3.54	2805		
700	0.43	0.87	1.3	2.17	3.25	4.34	6.51	8.68	2004		
900	0.87	1.73	2.6	4.33	6.5	8.67	13		1559		
1100	1.53	3.06	4.59	7.66	11.48				1275		
1300	2.48	4.96	7.43	12.39					1079		
1500	3.77	7.53	11.3						935		

Installation



You may choose SIS for just material manufacture and supply, or installation as well. Either way, you can be guaranteed of superior customer service and on-site support throughout any project. Our structures team were responsible for the design and construction of the first wholly composite boardwalk and wholly composite bridge installed in Australia and can construct pedestrian structures from ground up or can complete a simple retrofit to an existing sub-structure.

Our installation team is well established, reputable and award-winning and have acquired significant experience undertaking a wide range of design and construction projects including those in rural and remote locations. We provide a professional, quality service in commercial construction with all works completed with integrity and professionalism. Having consistently demonstrated a strong work ethic, quality and commitment to all works we undertake, SIS is trusted on a National level to carry out an ever growing variety of works requiring innovation and a sustainable outlook.

BASIC TIPS

SAFETY PRECAUTIONS

When cutting StructuralComp FRP grating products, always wear safety glasses to protect your eyes and a dust mask to prevent dust inhalation. Also wear gloves and a shop coat with sleeves to prevent skin irritation. Work in a well ventilated area.

CUTTING

Depending on the amount of FRP grating to be cut, a variety of shop tools can be used. For the best results, use a heavy-duty rotary saw with a masonry, carbide or diamond coated blade. Firm support of the panel will prevent shifting. Turning the panel bottom-side-up gives a smooth surface for the saw to ride on and reduces chipping. Be sure to allow for the blade width when measuring.

GRINDING

All cut edges should be ground smooth.

FINISHING

All cut surfaces should be coated with resin to prevent corrosion of glass fibers. A coating of a two-part resin system or comparable to the resin used in the manufacture of the fiberglass grating should be used to maintain corrosion resistance.

CLIP INSTALLATION

Whenever possible, provide a minimum of 40mm bearing support at all grating support points. Hold down clips should be used at the rate of 4 per m^2 .

CLIPS

Use clips to join grating panels together and fasten grating to support system.SIS supplies various types of clips for its grating.

Contact SIS for full instalation documentation, advice and support.





L Clips:

To fasten grating panels to super structure for moderate loads.



C Clips:

For joining two ends of moulded grating together.



PAW Clips:

For the ultimate in holding capacity of square mesh fiberglass grating, the PAW clip should be specified. These clips clamp 4 load bars to the support, offering excellent bidirectional resistance to loads.







G Types:

To fasten grating to super structure without drilling holes.



W Clips:

This 38mm diameter fastener is used for holding down plates and covered fiberglass grating. The W clip's recessed center allows the fastener to sit flush.









MATERIAL SAFETY DATA SHEET - Date of Issue 10th July 2015 Not classified as hazourdous according to criteria of worksafe Australia

IDENTIFICATION

Product Name:	FIBREGLASS REINFORCED PLASTIC
Other Names:	F.R.P / FIBER REINFORCED POLYMER
Manufacturers Product Code:	SIS-FRP-
UN Number:	NOT APPLICABLE
Dangerous Goods Class and Subsidiary Risk:	NOT APPLICABLE
Hazchem Code:	NOT APPLICABLE
Poisons Schedule Number:	NOT APPLICABLE

Use:

- Manufacture of fibre optic cables, cable ladders, ladders, grating, rods, various profile shapes to be used in structural applications ie. Bridges, boardwalks, cross arms:
- General use replacing steel, aluminium, wood etc.

PHYSICAL DESCRIPTION / PROPERTIES

Appearance:	SOLID MATERIAL WITH VERY LOW ODOUR.
Boiling Point/Melting Point:	NOT APPLICABLE
Vapor Pressure:	NOT APPLICABLE
Specific Gravity:	1.7 to 2.1
Flashpoint:	NOT APPLICABLE
Flammability Limits:	NOT APPLICABLE
Solubility in water:	NOT APPLICABLE
Auto-ignition Temperature:	340° to 370°C
Odor Threshold:	VERY LOW
Physical State (20°C)	SOLID
Fire Point:	500°C

INGREDIENTS

Chemical Name	CAS Number	Proportion
Cured Thermoset Resin	NOT APPLICABLE	15-60%
Glass Filament/mat	6599-17-3	40-85%





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HEALTH HAZARD INFORMATION

Health Effects

- Information on health effects are for substances which may result from operations generating nuisance dust;
- Based on available animal experiments and epidemiology as per NOHSC:1001(1989).

Chronic:

- Animal experiments and evidence from human studies have caused the International Agency for Research and Cancer to conclude that reinforcing glass filament cannot be classified as to its carcinogenetic properties to humans due to inadequate or insufficient information (group 3/ IARCA).
- No risk of lung cancer has been demonstrated in the reinforcing glass filament sector.
- No evidence of lung fibrosis has been shown in the reinforcing glass filament sector.
- No risk of mesothelioma has been demonstrated in the reinforcing glass filament sector.

Acute:

Swallowed: Non-irritant. No adverse effects expected.

Eye: May cause mild eye irritation from operations generating a nuisance dust.

Use of safety glasses with side shields or a vented safety goggle recommended for dusty environments.

Skin: May cause mild skin irritation from operations generating a nuisance dust. Use of long sleeve shirts and leather gloves may reduce skin exposure. Good ventilation system suggested.

Inhaled: May produce low respiratory irritation and coughing from operations generating a nuisance dust. Use of dust masks and a good ventilation system may reduce the exposure.

FIRST AID

Eye: DO NOT RUB EYES. Rinse eyes with generous amount of water for 15 minutes. Keep eyelids open during rinsing. Sterile eyewash may help relieve the discomfort. If discomfort persists, seek medical assistance.

Skin: Wash affected area with mild soap and cool to warm water to remove any dust. Apply a good lanolin base hand cream or lotion. If irritation persists for more than 3-4 days, seek medical advice.

Inhaled: Remove from exposure to fresh air. Apply artificial respiration if not breathing. If breathing difficulty persists, seek medical assistance.

Advice to doctor – treat like general dust.





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PRECAUTIONS FOR USE

Exposure Standards: As per NOHSC:1003 (1995) – Exposure Standards for Atmospheric Contaminants in the Occupational Environment.

Respirable dust (SMF): TWA = 0.5 fibers/mL

Non-respirable dust: $TWA = 2 \text{ mg/m}^3$

Engineering Controls

- · Segregation of processes generating nuisance dust from other personnel;
- Capture of dust at source and safe disposal with a local exhaust ventilation system.

Personal Protection

Eye: Safety glasses with side shields or a vented safety goggle recommended for dusty environments.

Skin: Long sleeve shirts and leather gloves may reduce skin exposure.

Inhalation: Dust masks may reduce the risk of inhaling and/or swallowing.

Flammability: Not flammable under conditions of use.

SAFE HANDLING INFORMATION

Storage and Transport: Not classified as dangerous goods according to Dangerous Goods (Storage and Handling) Regulations 1989.

Spills and Disposal: NOT APPLICABLE

Fire/Explosion Hazard: No fire or explosion hazards under any reasonably foreseeable conditions of use or storage.

May produce toxic fumes of carbon monoxide if burning in confined space.

Any type of extinguisher or fire-fighting agent is acceptable – water, foam, dry chemical.

Self-contained breathing apparatus may be used in confined space.

OTHER INFORMATION

Toxicity and Eco-toxicity: NOT APPLICABLE Biodegradability: NOT APPLICABLE Persistence in Soil/Water: NOT APPLICABLE



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