

Test Report No. 7191061185-MEC13/08-ED
dated 4 Jul 2013



PSB Singapore

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SUBJECT:

Testing of fibre cement board submitted by Visaka Industries Ltd

TESTED FOR:

Visaka Industries Limited
Visaka Towers
1-8-303/69/3, S.P. Road
Secunderabad
A.P. 500003
India

Attn: Mr Jawahar Rawtani

TEST METHOD:

Adopted ASTM C1185 : 2008 (2012) Standard Test Methods For Sampling And Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing And Siding Shingles, And Clapboards

Section 5 - Flexural Strength (Modulus of Rupture)

Section 12 - Freeze/Thaw - Cladding Products

DESCRIPTION OF SAMPLE:

Fibre Cement Board 'V-Premium'

REMARKS:

1. No cracks, delamination or warpage observed after freeze/thaw.
2. The average values of sample references in two directions and overall average value of two directions are reported as requested by the client.
3. The average ratio value was calculated based on flexural strength after freeze/thaw to control reference from test report 7191061185-MEC13/01-ED (refer to pages 5 and 6 of 7)

Eddie Suwand
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TEST RESULTS:

Size : 305 mm x 152 mm

Test condition : Freeze/Thaw 50 cycles

a. Immersion in water at 23°C for 48 hours

b. 1 cycle :

i. -20°C for 2 hours

ii. +20°C for 2 hours

Direction : Parallel

Crosshead speed : 30 mm/min

Sample Reference	1	2	3	4	5	6	7	8	9	10
Maximum Load (N)	184.68	158.95	163.51	155.32	151.27	178.27	151.95	177.17	159.62	161.56
Length of Span (mm)	254									
Width of Specimen (mm)	152.4	152.3	152.1	153.1	153.2	152.7	152.8	152.1	152.7	151.8
Thickness (mm)	7.78	7.76	7.82	7.53	7.52	7.74	7.83	7.84	7.74	7.56
Flexural Strength (MPa)	7.63	6.60	6.70	6.82	6.65	7.42	6.18	7.22	6.65	7.10
Average Flexural Strength (MPa)	6.90									
Ratio (R)	1.09									

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TEST RESULTS:

Direction : Perpendicular
Crosshead speed : 30 mm/min

Sample Reference	1	2	3	4	5	6	7	8	9	10
Maximum Load (N)	214.04	250.40	284.15	275.63	226.44	240.96	215.39	219.44	285.42	224.0
Length of Span (mm)	254									
Width of Specimen (mm)	151.8	151.1	151.2	152.8	150.7	151.1	153.1	152.7	151.5	153.1
Thickness (mm)	7.56	7.66	7.53	7.78	7.68	7.70	7.55	7.61	7.82	7.46
Flexural Strength (MPa)	9.40	10.76	12.63	11.35	9.71	10.25	9.40	9.45	11.74	10.02
Average Flexural Strength (MPa)	10.47									
Ratio (R)	0.93									
Average Flexural Strength, two directions (MPa)							8.68			
Average Ratio, two directions (R)							1.01			

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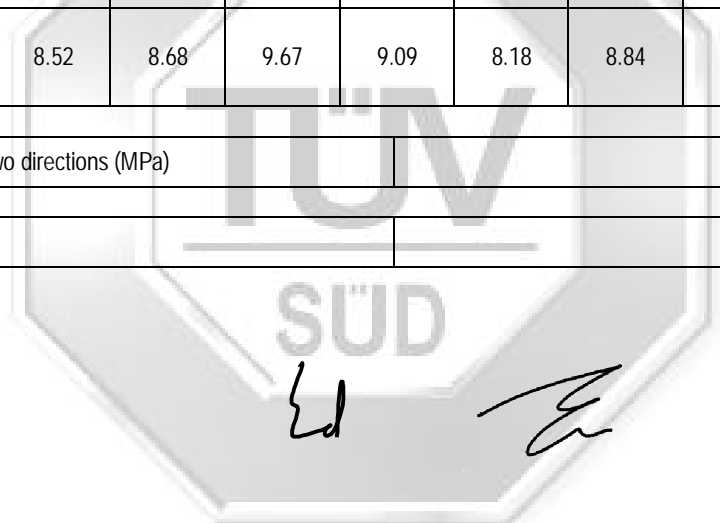
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TEST RESULTS:

Sample Reference, Parallel	1	2	3	4	5	6	7	8	9	10
Flexural Strength (MPa)	7.63	6.60	6.70	6.82	6.65	7.42	6.18	7.22	6.65	7.10
Sample Reference, Perpendicular	1	2	3	4	5	6	7	8	9	10
Flexural Strength (MPa)	9.40	10.76	12.63	11.35	9.71	10.25	9.40	9.45	11.74	10.02
Average Flexural Strength of Sample Reference, two directions (MPa)	8.52	8.68	9.67	9.09	8.18	8.84	7.79	8.34	9.20	8.56

Overall Average Flexural Strength, two directions (MPa)	8.68
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Average Ratio (R)	0.99
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TEST RESULTS:

Size : 305 mm x 152 mm

Direction : Parallel
Crosshead speed : 50 mm/min

Sample Reference	1	2	3	4	5	6	7	8	9	10
Maximum Load (N)	248.98	232.95	235.15	238.27	237.76	239.20	224.25	204.59	211.26	228.13
Length of Span (mm)	254									
Width of Specimen (mm)	152	152	152	152	152	152	152	152	152	152
Thickness (mm)	9.54	9.72	9.65	9.70	9.64	9.60	9.62	9.22	9.12	9.29
Flexural Strength (MPa)	6.86	6.18	6.33	6.35	6.41	6.51	6.07	6.03	6.37	6.63
Average Flexural Strength (MPa)	6.37									

Direction : Perpendicular
Crosshead speed : 50 mm/min

Sample Reference	1	2	3	4	5	6	7	8	9	10
Maximum Load (N)	434.94	444.98	444.89	435.61	443.71	439.49	313.43	302.88	301.45	327.35
Length of Span (mm)	254									
Width of Specimen (mm)	152	152	152	152	152	152	152	152	152	152
Thickness (mm)	9.84	9.72	9.63	9.60	9.75	9.71	8.72	8.66	8.22	8.80
Flexural Strength (MPa)	11.26	11.81	12.02	11.85	11.70	11.68	10.33	10.12	11.18	10.60
Average Flexural Strength (MPa)	11.26									

Average Flexural Strength, two directions (MPa)	8.81
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TEST RESULTS:

Sample Reference, Parallel	1	2	3	4	5	6	7	8	9	10
Flexural Strength (MPa)	6.86	6.18	6.33	6.35	6.41	6.51	6.07	6.03	6.37	6.63
Sample Reference, Perpendicular	1	2	3	4	5	6	7	8	9	10
Flexural Strength (MPa)	11.26	11.81	12.02	11.85	11.70	11.68	10.33	10.12	11.18	10.60
Average Flexural Strength of Sample Reference, two directions (MPa)	9.06	9.00	9.18	9.10	9.06	9.10	8.20	8.08	8.78	8.62
Overall Average Flexural Strength, two directions (MPa)							8.81			

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July 2011

