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TECHICAL DATA SHEET GGBS LIGHTWEIGHT PANEL(ALC) WITH LINTEL AND STIFFENER

Density	Compressive Strength BS EN 772	Sound transmission TM E90	Fire Rating BS 476:Pt22	Non-Combustibility BS 476:Pt 4	Drying Shrinkage (%)
500kg/m³	6.6 Mpa	41(150mm thick)	4 hours(150mm thick)	Passed	0.08

Requirements	**Green**	**Customizable Length**	**Wall Hang (washbasin, cabinet, etc.)**	**Usage in Wet/Facade/Parapet**	**Dry Installation**	**Surface Appearance**
GGBS Panel(ALC) Wall panel	yes	yes	yes	Yes	Yes	Smooth with Skin Coat
Requirements	**Applied Finishes : Tiling**	**Joint Treatment**	**Fastener Types**	**Flexibility of Relocation**	**On-Site Installation of Concealed Wiring , Ducting& Pipework**	
GGBS Panel(ALC) Wall panel	yes	Fiber Mesh is placed between panels, followed by application of skim coat	Wall Plug /Screws	Can be removed and replaced with relative ease and minimal mess	By Surface Hacking	

LIGHTWEIGHT LINTEL AND STIFFENER SPECIFFICATION.

Size (mm)	Suit Wall THK(mm)	Fire Rating	Length Max	weight /m	Length adjustable	surface
100x200	100	2 Hr	6 m	15kg	600mm Max	Lightweight concrete
150x150	150	4 Hr	6 m	19kg	600mm Max	Lightweight concrete
200x200	200	4 Hr	6 m	28kg	600mm Max	Lightweight concrete

Patent Application No.: 10201510221W

YMW CONSULTANTS

Design calculation for support system for GGBS panel

Codes of practices and regulations

BS 6399 - Design loading for building

BS 5950: 2000 - Structural steel work in building

1. Information

Concrete grade C 30 N/mm2

Steel member strength 275 N/mm2

2. Load case

2.1 Dead load

Selfweight of concrete block 20.0 KN/m3

Selfweight of steel 78.5 KN/m3

2.2 Live load (lateral force)

uniformly distributed load based on safety barrier 1.0 KN/m2

2.3 Wind load

Wind load =

Basic Wind Speed Vs= 32 m/s

Design Wind Speed V= VsXS1XS2XS3

S1 Topography Factor = 1.00

S2 Building Size and Height above ground factor = 1.00

(Based on 100m high of screen location)

S3 A Statistical factor = 1.00

Wind Pressure Q= $0.613V^2$ 0.63 kN/m2

Wind pressure to screen 0.63 kN/m2

2.3 Load combination

For horizontal direction due to live load

1.6LL 1.60 kN/m2

For horizontal direction due to wind load

1.2WL 0.75 kN/m2

3. Design calculation

Choose the worst case to design

case 1: for 200mm thk external wall with 150x150x3mm stiffener

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