ASLAN
CONTRACTING & TRANSPORTATION

أصلان للمقاولات والنقليات
Aslan Contracting & Transportation

ASLAN
Technical Data Sheet
(Slab Panel)

P.O. Box : *32076 Doha-Qatar*
Tel : *5580 8631/*
Fax : *4435 0802*
Email : *info@aslanqatar.com*
Web : *www.aslanqatar.com*

Table of Contents

P.O. Box : 32076 Doha-Qatar
Tel : 5580 8631/
Fax : 5580 0802
Email : info@aslanqatar.com
Web : www.aslanqatar.com

1.1. ASLAN AAC Slab Panel

TDS. 1.1.1. General Features.

ASLAN Autoclaved aerated concrete AAC floor slab panels are lightweight, fire resistant, fast and easy to install and provide lifelong superior thermal insulation. ASLAN Slab Panels are steel reinforced Autoclave aerated concrete elements. The interior steel wire reinforcement covered with an anti-corrosion coating. ASLAN slab Panel produced is a DIN EN 12602 Strength class: *GB 3.3, GB 4.4*.

1.1.2. Uses.

ASLAN Slab Panels used as floor simply supported slabs on ASLAN Blocks or CMU Load-Bearing Wall, Wood, Concrete or Steel beams. These panels used in residential, multi-family housing, hotels, offices and industrial building. ASLAN AAC meets the inverse demands better than any other material due to the numerous advantages of its physical, mechanical, entry efficiency safety properties.

1.1.3. Dimensions.

Length: Up to 600 cm
Width: 60 cm, (min. 25 cm)
Thickness: 20, 25, 30 cm
Special Formats also provided upon request.

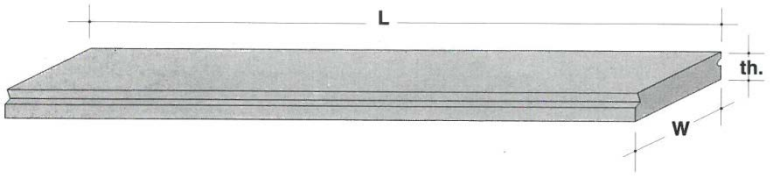


Figure 6- 1. ASLAN Slab Panel

1.1.4. Properties.

Table. ASLAN AAC Slab Properties.

Characteristic	Strength Class		Units	Remark
	GB 3.3	GB 4.4		
Dry Density	600	700	Kg/m^3	± 50
Design Weight (1)	700	800	Kg/m^3	± 50
Compressive strength	3.50	5.00	N/mm^2	Minimum
Modulus of Elasticity	2000	2250	N/mm^2	
Drying Shrinkage	0.2	0.2	mm/m	
Thermal Conductivity	0.14	0.16	W/(Km)	Maximum
Thermal Expansion Coefficient	8×10^{-6}	8×10^{-6}	1/°C	
Fire Rating	4	4	Hrs.	

(1) Value consider material's moisture content.

Comply with Standard: DIN EN 12602/2013 prefabricated reinforced components of autoclave aerated concrete.

P.O. Box : *32076 Doha-Qatar*
Tel : *5580 8631/*
Fax : *4435 0802*
Email : *info@aslanqatar.com*
Web : *www.aslanqatar.com*

Table. Thermal Properties.

ASLAN AAC Wall Panel Strength Class	Thermal Conductivity (W/m°K)	Thickness (mm)	Total Thermal Resistance R_T-value (m^2K/W)	Heat Transmission coefficient U-value (W/m^2K)
GB 3.3	0.14	100	0.88	1.13
		150	1.24	0.81
		200	1.60	0.63
		250	1.96	0.51
		300	2.31	0.43
GB 4.4	0.16	100	0.80	1.26
		150	1.11	0.90
		200	1.42	0.70
		250	1.73	0.58
		300	2.05	0.49

RT-value have been calculated with internal surface resistance 0.13 m^2K/W and external surface 0.04 m^2K/W.
Note: This calculation without adding any finishing materials.

Table. Acoustic Performance.

Material	Thickness (mm)	STC Sound Transmission Class
ASLAN AAC Density (650 - 700) Kg/m^3 Unfinished	100	40
	150	43 - 44
	200	46
	250	48
	300	49 - 52

Testing preformed at AL MANA & ASSOCIATES Acoustic Consultant test report no. *Ref: X:\d30541-001a-\05\ca00636c*

Table. Fire Performance.

Material	Thickness (mm)	BS 476: Part 22:1987	
		Integrity (minutes)	Insulation (minutes)
ASLAN AAC Density (600- 650) Kg/m^3	100 and up	240	240

Testing preformed at EXOVA (Warrington Certification) test report no. *CF 5207.*
Approval certificate QCDD - Qatar Civil Defense Department No. *PAC16016033*

P.O. Box : 32076 Doha-Qatar
Tel : 5580 8631/
Fax : 4435 0802
Email : info@aslanqatar.com
Web : www.aslanqatar.com

1.1.5. Maximum Spans and Moments.

Table. Maximum Span and Moment span, Strength Classes GB 3.3 & GB 4.4.

1. Maximum Spans and Moment Span Strength Class GB 3.3.

Slab Thickness	M max.	Imposed Load kN/m²													Self-load
		1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.25	5.50	5.75	6.00	
mm	kNm/m	MAX. Spans (m)													kN/m²
100	2.54	3.27	3.02	2.73	2.51	2.34	2.19	2.07	1.99	1.9					0.72
125	4.17	4.09	3.73	3.93	3.13	2.92	2.75	2.61	2.49	2.38					0.90
150	6.18	4.91	4.38	4.01	3.72	3.48	3.29	3.12	3.03	2.90					1.08
175	8.64	5.54	5.01	4.61	4.29	4.03	3.81	3.63	3.50	3.35					1.26
200	11.46	6.00	5.58	5.16	4.82	4.54	4.31	4.10	4.00	3.80	3.70	3.64	3.58	3.52	1.44
250	18.42	6.00	6.00	6.00	5.85	5.54	5.27	5.04	4.83	4.56	4.56	4.49	4.41	4.34	1.80
300	26.94	6.00	6.00	6.00	6.00	6.00	6.00	5.92	5.65	5.48	5.38	5.31	5.13	5.13	2.16

2. Maximum Spans and Moment Span Strength Class GB 4.4.

Slab Thickness	M max.	Imposed Load kN/m²													Self-load
		1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.25	5.50	5.75	6.00	
mm	kNm/m	MAX. Spans (m)													kN/m²
100	3.62	3.50	3.50	3.19	2.95	2.75	2.58	2.45							0.84
125	5.92	4.48	4.32	3.95	3.66	3.43	3.24	3.07	2.94	2.81					1.05
150	8.83	5.46	5.06	4.66	4.33	4.07	3.85	3.66	3.50	3.36	3.39	3.23	3.17	3.12	1.26
175	12.35	5.90	5.77	5.34	4.99	4.70	4.46	4.25	4.07	3.91	3.83	3.76	3.70	3.64	1.47
200	16.37	6.00	5.90	5.90	5.60	5.29	5.03	4.80	4.60	4.43	4.35	4.27	4.20	4.13	1.68
250	26.32	6.00	6.00	6.00	6.00	6.00	6.00	5.88	5.65	5.45	5.35	5.26	5.18	5.10	2.10
300	38.45	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.90	5.90	5.90	5.90	5.90	5.90	2.52

This table is intended to provide information for determining preliminary panel thicknesses and does not replace the judgment of a qualified design professional.

1.5.5. Reinforcement.

Standard slabs are reinforced with double steel mesh. The top mesh is mainly designed for transport and deflection. The steel meshes are welded and corrosion-protected in ASLAN factory, individually for each slab-position. Reinforcement cover is approx. 10 mm.

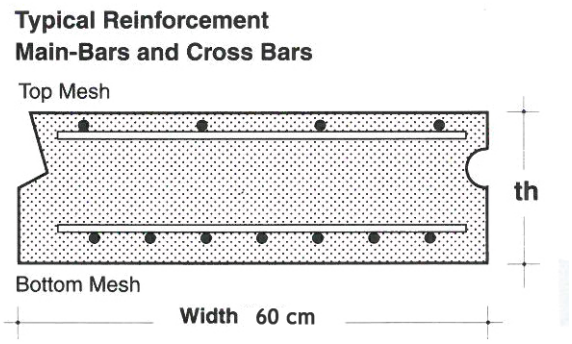
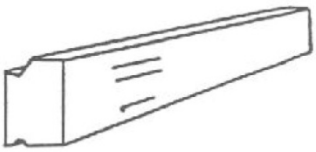


Figure 6- 2. Slab panels cross section.

P.O. Box : 32076 Doha-Qatar
Tel : 5580 8631/
Fax : 4435 0802
Email : info@aslanqatar.com
Web : www.aslanqatar.com

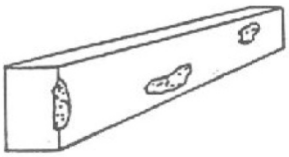
2.1. Repairing Criteria (Load Bearing & Non-Load Bearing).

LOAD BEARING SLABS AND LINTELS CRITERIA

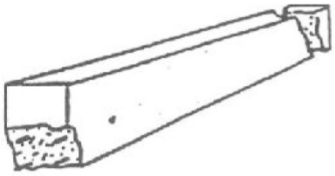


Repair -

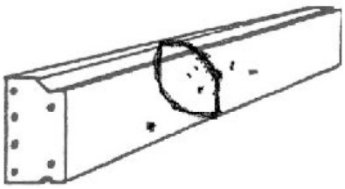
Repair -



Repair -



Repair -

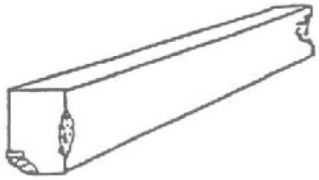


Repair -

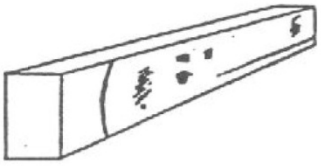
Repair -

P.O. Box : *32076 Doha-Qatar*
Tel : *5580 8631/*
Fax : *4435 0802*
Email : *info@aslanqatar.com*
Web : *www.aslanqatar.com*

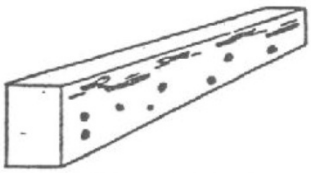
LOAD BEARING SLABS AND LINTELS CRITERIA



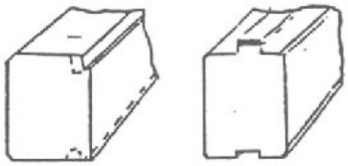
Repair - ✓



Repair - ✓



Repair - ✓



Repair - ✓

- Repair Slab & Lintel with any Dimension (Length Max 10cm, Thickness 25cm, and Max Height 30cm). With continues cracks in the middle can be repaired.