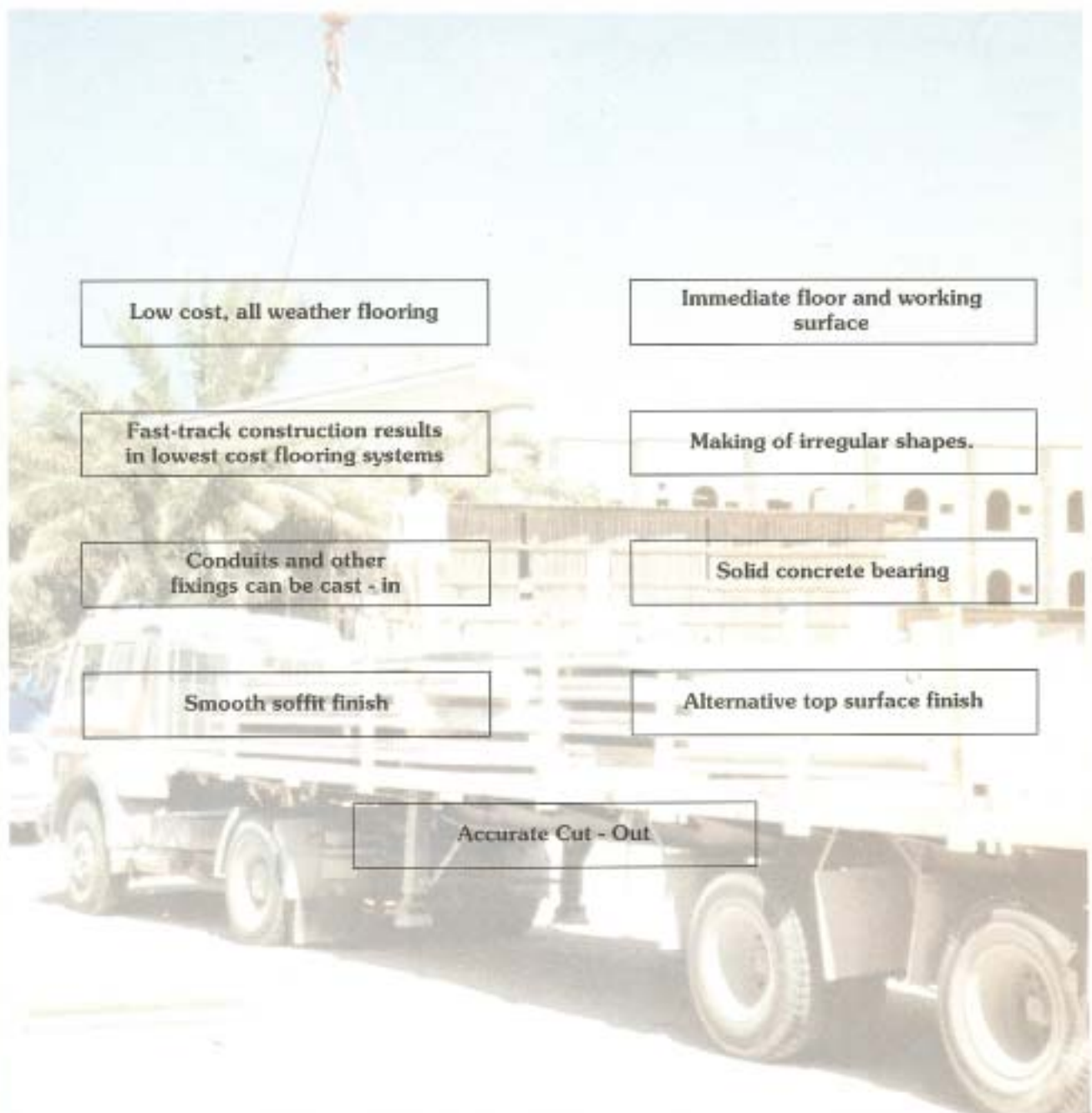


AL MANARATAIN



المنارتين

PRESTRESSED INSULATED AND SOLID SLABS



Low cost, all weather flooring

Immediate floor and working surface

Fast-track construction results in lowest cost flooring systems

Making of irregular shapes.

Conduits and other fixings can be cast - in

Solid concrete bearing

Smooth soffit finish

Alternative top surface finish

Accurate Cut - Out

AL MANARATAIN

PRODUCT DESCRIPTION

AL MANARATAIN Prestressed Insulated & Solid Slabs are cast on specially designed prestressing beds. As structural elements, these slabs are superior building products. They are superior not alone by virtue of their engineering design, but by virtue of their simplicity and precision quality. Al Manaratain Slabs have a solid slab ends at bearing. Additional re-inforcing steel can be incorporated during production. These slabs are produced to accurate lengths and never cut.

PRODUCTION

The Slabs produced on the previous day are removed from the beds by crane, fitted with four lifting chains. The hooks on the lifting chains are secured to four lifting points which are positioned in the Slab during production.

When the Slabs are removed, the bed is then brushed clean and coated with a recommended mould oil. The Stop End Spacer Plates are also positioned at this stage.

The prestressing tendons are decoiled and secured at each end of the stressing sections by enclosed anchor grips. The wires are then tensioned by stressing jack, calibrated and set to required wire loading.

The placing of concrete is done by a ready mix truck driving along the side of the bed. The first layer is placed, vibrated and leveled to a pre-determined height. The polystyrene cores are then placed into position and the final layer of concreting is done. The top of the slab is finished to the desired texture.

The concrete used for the precast production is a specially designed mix with a 28 days compressive strength of 75 N/mm² with a strict control on the quality of aggregate, sand & water for the concrete production.

On completion of concrete placement, the beds are covered with polythene sheets to retain moisture during the curing process.

Once the release strength is achieved, the products are demoulded and cured in water for 7 days.

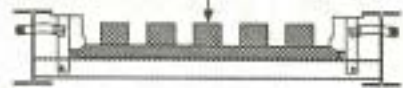




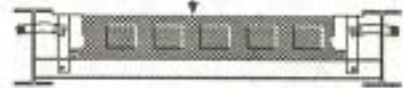
- 1 First Placement of Concrete



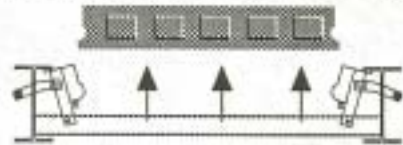
- 2 Polystyrene Cores



- 3 Final Placement of Concrete



- 4 Removal of the slab after reaching 30 N/MM2



PRODUCT APPLICATION

Al Manaratain Insulated and Solid Slabs are widely used as floor and roof slabs for villas, high rise buildings, commercial establishments, schools, hospitals and other type of residential projects.

ADVANTAGES

The slabs can be readily fixed to concrete and steel structure, forming an immediate floor and working surface.

The production process is so simple and versatile that the slabs can be designed and produced to fit in any shape of the rooms without any cutting of slabs.

Openings of any size and shape can be made in the slabs for the A.C. conduits and electrical wires.

Noise reduction properties of slabs are excellent.

All Al Manaratain slabs are cured in water for 7 days before delivering to sites.

Erection;

The erection of the slabs is done by the experienced Al Manaratain erection team led by experienced supervisors to the required specification.



PRODUCT RANGE

150 mm insulated slab
 200 mm insulated slab
 150 mm solid slab
 200 mm solid slab

Thermal insulation

"U" value for 150 mm
 Insulated Slab: 1.484 W/M² C
 "U" value for 150 mm Solid
 Slab: 3.537 W/M² C

Bearings

Al Manaratain Slab have a minimum of 70mm bearing on concrete and steel supports

Design Specification

Our slabs are designed in accordance with BS 8110 : Part 1 : 1997 and Part 2 : 1985

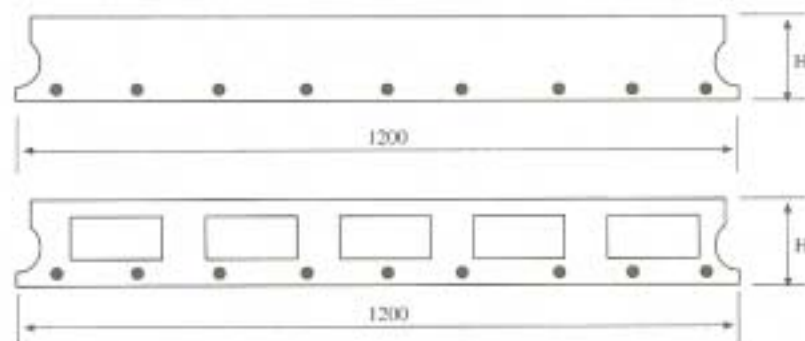
Load / Span Tables
 Various Loading Cases

	Service Load (KN/m ²)	Ultimate Loads (KN/m ²)
(A) 50 mm Screed	1.20	1.68
(B) 50 mm Screed + Ceiling	1.50	2.10
(C) 75 mm Screed	1.80	2.52
(D) 75 mm Screed + Ceiling	2.10	2.94

Slab Weight + Joint 2.56 KN/m ²	150 mm Insulated Slab						
	1.50	2.00	2.50	3.00	3.50	4.00	5.00
(A)	6.13	5.93	5.75	5.60	5.47	5.34	5.11
(B)	6.00	5.82	5.65	5.52	5.39	5.28	5.06
(C)	5.89	5.73	5.58	5.45	5.32	5.21	5.00
(D)	5.79	5.65	5.50	5.37	5.24	5.13	4.94

Slab Weight + Joint 3.60 KN/m ²	150 mm Solid Slab						
	1.50	2.00	2.50	3.00	3.50	4.00	5.00
(A)	5.90	5.70	5.48	5.32	5.21	5.00	4.72
(B)	5.78	5.57	5.38	5.21	5.06	4.90	4.66
(C)	5.65	5.45	5.28	5.13	4.96	4.83	4.58
(D)	5.53	5.35	5.18	5.02	4.88	4.75	4.52

Slab Weight + Joint 3.34 KN/m ²	200 mm Insulated Slab						
	1.50	2.00	2.50	3.00	3.50	4.00	5.00
(A)	7.18	7.58	7.28	7.01	6.77	6.55	6.18
(B)	7.74	7.42	7.14	6.88	6.65	6.45	6.09
(C)	7.57	7.27	7.00	6.76	6.54	6.35	6.00
(D)	7.40	7.12	6.87	6.64	6.44	6.25	5.92



※ This is a marketing catalogue and not for specification.

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