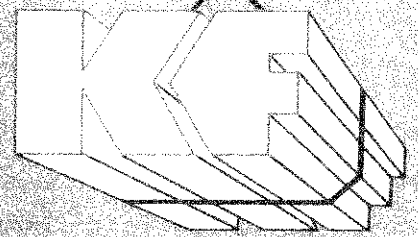
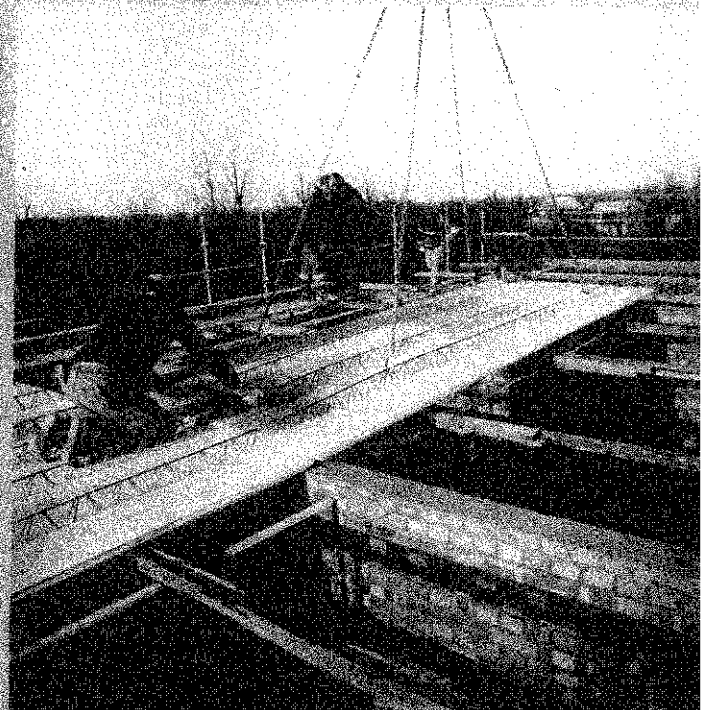


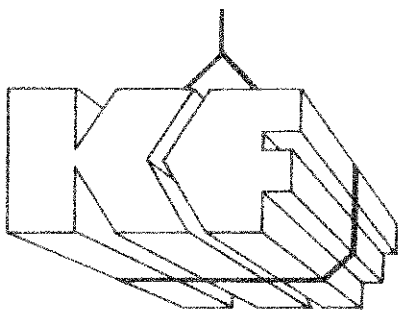
# KATZENBERGER FLOORS



**BLOCK & PLANK**



**WIDESLAB**



# BLOCK & PLANK

## BLOCK AND PLANK

Block and Plank composite flooring is a versatile lightweight man handleable system designed with speed of erection and economy in mind. The system comprises of precast concrete planks containing a Katzenberger steel lattice girder with necessary additional reinforcement and lightweight hollow blocks. These elements provide a permanent shutter to the structural insitu concrete.

The concrete Plank, placed at 650mm centres, provides seating for the infill blocks. The Plank width is 160mm and the length is tailored to individual requirements. A bearing of 100mm on loadbearing brickwork and 50mm on concrete beams or lintels is generally required.

The lightweight blocks are manufactured in various depths as below:—

- 100mm Solid tray tile
- 150mm Hollow Block
- 200mm Hollow Block
- 250mm Hollow Block
- 300mm Hollow Block

The transverse strength is in accordance with BS 2028; 1953.

Although temporary PROPPING is kept to a minimum, the girder should not have an unsupported span of over 2m. For specific propping details please contact our design department.

SERVICE OPENINGS are easily catered for by the omission of lightweight blocks in the required position. Because of this flexibility, on-site changes can be effected with great ease.

Block and Plank Flooring in conjunction with the finishes set out in Building Regulations 1976, schedule 12 part II will provide adequate SOUND INSULATION and resistance to airborne and impact sound.

FIRE RATINGS based on the requirements of Part VIII of schedule 8 of the Building Regulations 1976 are as follows:—

- Without structural topping 1 hour
- At least 30mm topping 2 hours
- At least 50mm topping + screed 4 hours\*

On all standard production floors, cover to the reinforcement is maintained at 15mm.

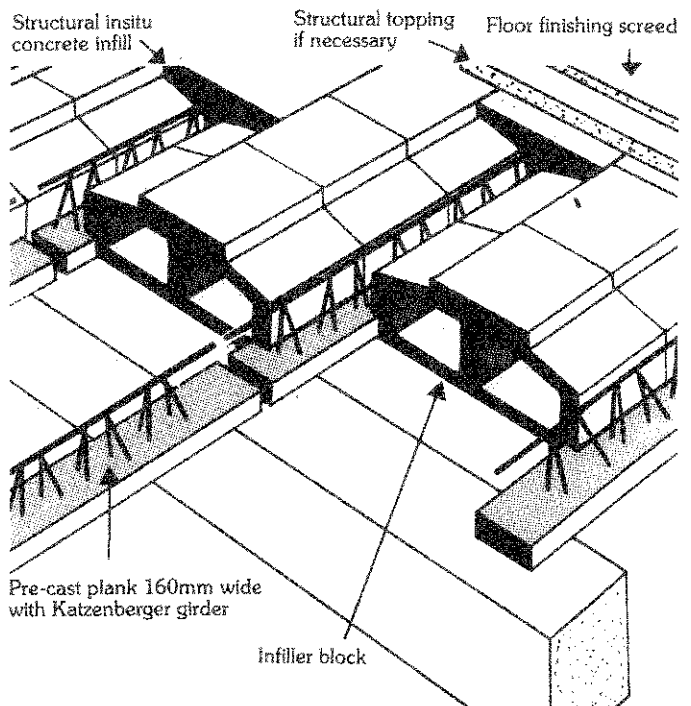
\*With a 4-hour rating the concrete cover to the main girder reinforcement must be increased to 25mm. On all floors where a finish is applied to either the top or the soffit the rating will be improved.

THERMAL INSULATION is also readily achieved in the use of Block and Plank flooring by the provision of one of the applied finishes set out against type 4 construction under table 5 of schedule No. 11 of Building Regulations 1976 to comply with Regulations F3 for roofs and against type 12 construction under table 3 of schedule No. 11 of Building Regulations 1976 to comply with Regulations F3 for floors.

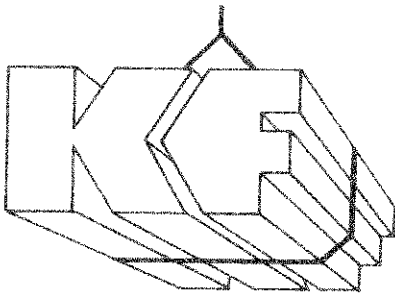
A number of CEILING FINISHES can be applied to the soffit of a Block and Plank floor.

- a) The floor itself has a flat soffit which forms an ideal key for the direct application of plaster.
- b) The planks afford an excellent surface for timber battens to be fixed onto which plasterboard can be nailed prior to skimming.
- c) Ceiling hangers can be inserted at the time of erection to allow the fixing of a suspended ceiling.

### Typical Block and Plank Composition



Floor Type	Floor Depth mm	Structural Concrete Topping mm	Floor Weight KN/m <sup>2</sup>	Volume Structural Concrete m <sup>3</sup> /m <sup>2</sup>	Resistance Mtr. Width KN m/m	EFFECTIVE SPAN FOR SUPERIMPOSED LOADING Finishes Assumed at 1.2 KN/m <sup>2</sup>								
						.75	1.5	2.0	2.5	3.0	4.0	4.5	5.0	7.0
150/50/650	150	50	3.00	0.072	24.57	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04
150/0/650	150	0	2.06	0.037	16.33	4.04	4.04	3.65	3.65	3.5	3.25	3.13	3.02	2.63
180/30/650	180	30	2.73	0.067	31.31	4.86	4.86	4.77	4.38	4.22	3.95	3.83	3.72	3.29
200/0/650	200	0	2.31	0.047	28.72	5.40	5.21	4.96	4.75	4.57	4.25	4.12	3.99	3.51
200/50/650	200	50	3.31	0.087	35.93	5.39	5.29	5.08	4.90	4.73	4.45	4.32	4.21	3.74
230/30/650	230	30	2.98	0.077	42.67	6.21	5.91	5.66	5.45	5.25	4.92	4.78	4.64	4.12
250/0/650	250	0	2.88	0.057	42.62	6.75	6.16	5.90	5.67	5.47	5.12	4.97	4.83	4.27
250/50/650	250	50	3.45	0.097	47.30	6.75	6.61	6.35	6.13	5.92	5.57	5.42	5.27	4.70
300/50/650	300	50	4.04	0.107	58.66	8.10	7.81	7.54	7.29	7.06	6.67	6.50	6.34	5.68



# WIDESLAB

## WIDESLAB

Wideslab flooring has been DESIGNED to conform to the conditions of span and loading generally associated with insitu concrete slab construction and forms a permanent shutter for the insitu topping.

The units are 50mm thick and available in widths of up to 2.35m and in any length. Where deep floors are required, 200mm and over, it is possible to construct a hollow cored floor incorporating a lightweight former. As supplied the Wideslab unit contains the designed tensile reinforcement of the floor slab.

SERVICE OPENINGS can be made at the precast stage leaving the positioning of formers, to maintain openings, a simple site operation.

Because of the COMPOSITE METHOD OF CONSTRUCTION of 'wideslab, special features such as cantilever balconies, are easily integrated.

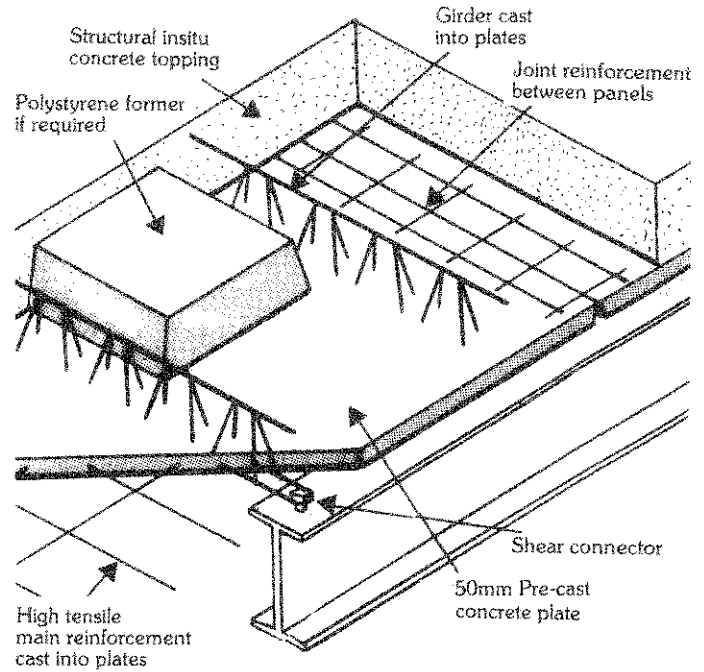
This composite method of construction also eliminates the differential camber and deflection between adjacent panels often experienced in prestressed units.

Minimal TEMPORARY PROPPING is required, the girder should not have an unsupported span of over 2m. Specific propping details should be obtained from our technical department.

REINFORCEMENT is necessary across joints between the adjacent Wideslab panels. This is achieved by the placement of loose bar or strip mesh. Additionally, top continuity reinforcement may be required, dependant on design and specification.

CONCRETING the floor can be achieved by the use of concrete pump, crane and skip or by other conventional means. A Tamped finish to the insitu concrete is normally adequate to receive the specified finish. The surface can be POWER FLOATED to take carpeting or other direct finishes, this, together with the FAIR FACED SOFFIT gives the complete floor which requires no further preparation prior to decoration.

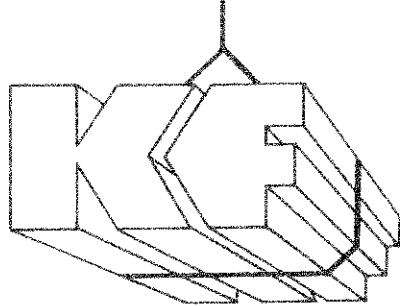
Typical Wideslab Composition



Wideslab flooring has advantages for both the designer and the contractor. In the case of the DESIGNER, it provides a method of construction that will meet the majority of conditions of span and loading that are accommodated by traditional insitu floors.

The CONTRACTOR has the advantage of not requiring any conventional formwork to provide and strike, no plastering, fewer props to position, less reinforcement and concrete to place and shorter soffit construction times.

Floor Depth mm	Depth of Structural Concrete Topping mm	Floor Weight KN/m <sup>2</sup>	Quantity of insitu concrete m <sup>3</sup> /m <sup>2</sup>	EFFECTIVE SPAN (Span to depth Ratio) IN METRES	
				Simply Supported	Continuous
100	50	2.4	.050	2.7	3.15
125	75	3.0	.075	3.375	3.937
150	100	3.6	.100	4.050	4.725
175	125	4.2	.125	4.725	5.512
200	150	4.8	.150	5.4	6.3
225	175	5.4	.175	6.075	7.087
250	200	6.0	.20	6.75	7.875
300	250	7.2	.25	8.1	9.45



# TROUGH

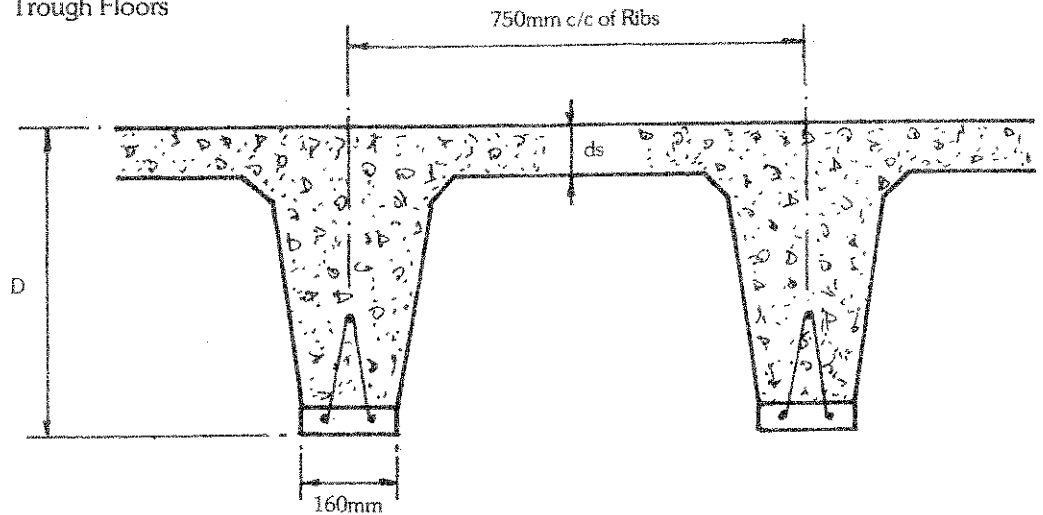
## TROUGH FLOORS

The KATZENBERGER Trough floor has been developed for the construction of one way spanning slabs.

By incorporating high strength reversible polystyrene formers with the standard KATZENBERGER plank, only minimum propping is required and still eliminates soffit shuttering and steel fixing associated with insitu forms of construction.

Complete versatility is obtained with a range of floor depths (D) from 200mm – 600mm. The flange thickness (ds) can be varied to suit design requirements and fire rating.

Trough Floors

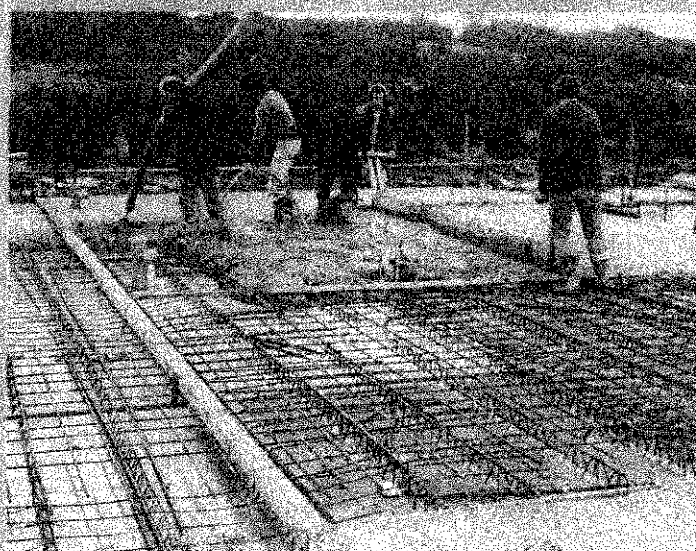
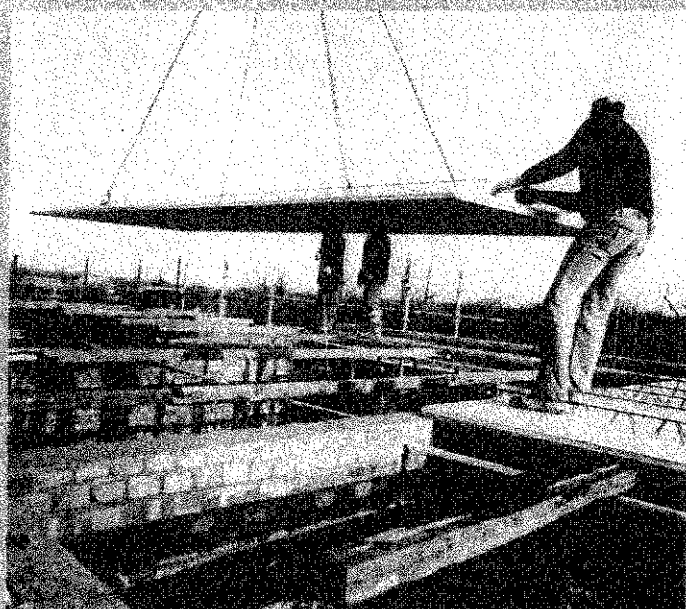
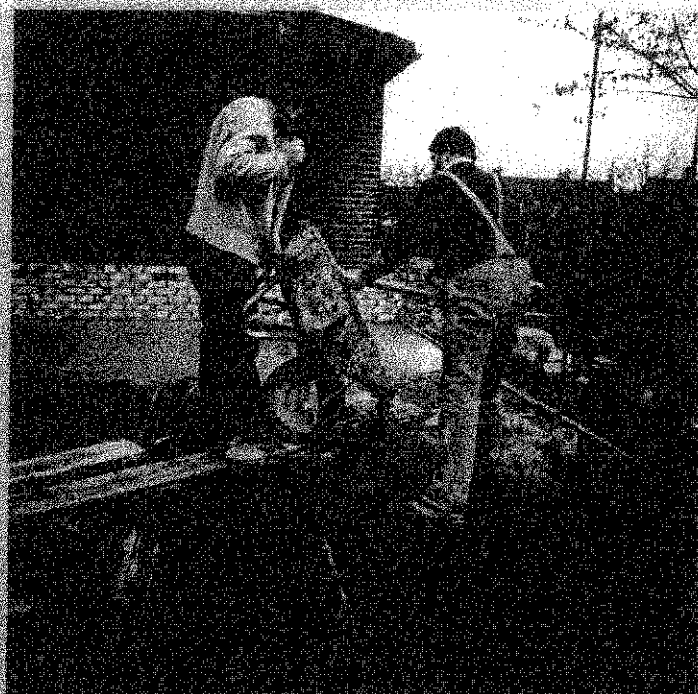
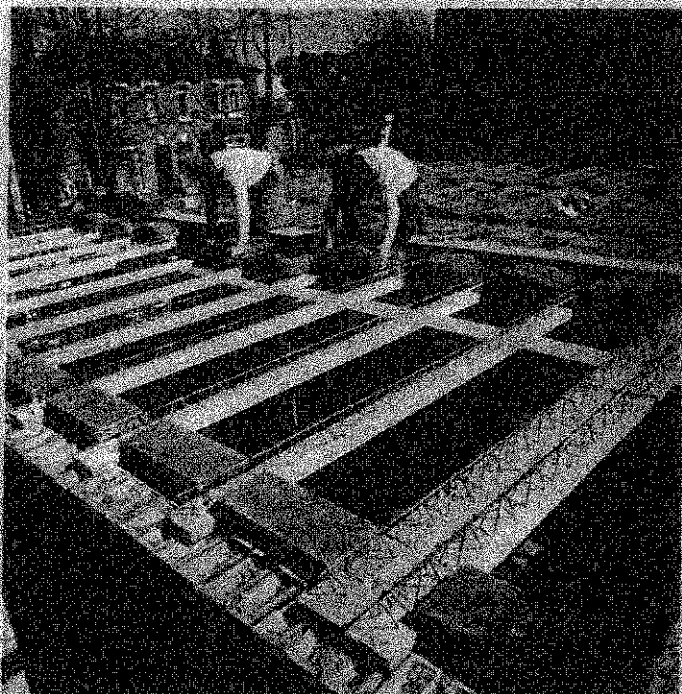


TYPICAL FLOOR DETAILS

D(mm)	ds(mm)	Polystyrene depth	self wt Kn/m <sup>2</sup>
200	60	140	2.51
250	60	190	2.90
300	60	240	3.30
300	75	225	3.53
350	60	290	3.70
350	75	275	3.93
400	60	340	4.08
400	75	325	4.40
450	60	390	4.49
450	75	375	4.72
500	60	440	4.9
500	75	425	5.15
530	60	490	5.30
550	75	475	5.50
600	60	540	5.66
600	75	525	5.9

Code of Basic Data for the Design of Buildings  
 Extract from British Standard Code of Practice CP.3 Chapter V Part 1

	Intensity of distributed load KN/m <sup>2</sup>	Concentrated load to be applied over any square with a 300 mm side KN
Houses, Flats and Maisonettes	1.5	1.4
Residential buildings such as apartment houses, boarding houses, guest houses, hostels, lodging houses and residential clubs, but excluding hotels or motels Bedrooms, communal kitchens	1.5	1.8
Public lounges	2.0	2.7
<u>Offices</u>		
Filing and storage spaces	5.0	4.5
Offices for general use	2.5	2.7
Offices with computing, data processing and similar equipment	3.5	4.5
<u>Hospital, bedrooms and wards</u>	2.0	1.8
<u>Hotels and Motels</u>		
Bars and vestibules	5.0	—
Bedrooms	2.0	1.8
Lounges	2.0	2.7
Dance Halls	5.0	3.6
<u>Departmental stores</u>		
Shop floors for display and sale of merchandise	4.0	3.6
<u>Factories and Similar Buildings</u>		
Light	5.0	4.5
Medium	7.5	6.7
Heavy	10.0	9.0
<u>Garages</u>		
Car parking only, for passenger vehicles and light vans not exceeding 2500 Kg gross weight, including driveways and ramps	2.5	9.0
Vehicles exceeding 2500 Kg gross weight including driveways and ramps	5.0	Worst combination of wheel loads
<u>Libraries</u>		
Reading rooms without book storage	2.5	4.5
Rooms with book storage (e.g. public lending libraries)	4.0	4.5
Stock rooms	2.4 for each metre of room height with a minimum of 6.5	7.0
<u>Stationery stores</u>	4.0 for each metre of storage height	9.0



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