

## HIBOND 55 COMPOSITE FLOOR SLAB LOAD SPAN TABLES

Superimposed loads ( $G_{SDL} + Q$ ) are presented for composite floor slab thicknesses between 110mm and 200mm and over a range of spans between 2.0m and 6.0m for single spans. For continuous design, negative reinforcement requirements are presented for double or end spans and internal spans, with an extended range of spans to 7.0m for the latter.

The following Notes apply to the composite floor slab load span tables in this Section.

1. Span types

$L_{ss}$  is the clear single span between permanent supports plus 100mm.

$L$  is the double/end or internal span measured centre to centre between permanent supports.

2. The design superimposed load combination is  $G_{SDL} + Q$  and must not be greater than the superimposed loads given in the tables.

3. a) Medium term superimposed loads are based on  $2/3$  short term and  $1/3$  long term (i.e. modular ratio = 10) and apply to buildings of normal usage.

b) Long term superimposed loads are based on all loads being long term (i.e. modular ratio = 18) and apply to storage loads and loads which are permanent in nature.

4. Deflection limits incorporated into these tables are as follows:

a)  $L/350$  or 20mm maximum due to superimposed load ( $G_{SDL} + Q$ ).

b)  $L/250$  maximum due to superimposed load plus prop removal ( $G + G_{SDL} + Q$ ).

The designer shall be satisfied that these limits are adequate for the application considered, otherwise additional deflection checks must be made.

5. Propping requirements depend on the Hibond 55 composite floor slab thickness and span configuration as formwork. Refer Hibond 55 Formwork Design Tables 3.4.4 to determine formwork span capabilities.

6. The double or end span and internal span tables allow for 10% moment redistribution where negative bending governs (typically thinner composite floor slabs on end spans), bounded by the shear bond value where this governs.

7. Some values shown in the double or end span tables are less than corresponding values given in the single span tables. This situation arises as,

a) Negative bending capacity has been limited to avoid compression failure of the concrete in compression at the internal support.

b) Shear bond is proportional to vertical shear which is higher for a double span than a single span. Also the shear bond span for an end span must be taken as the full span length using BS5950 Part 4 (when normally the span between points of contraflexure would be used).

8. Use of the double or end span tables and internal span tables assumes,

- All spans have the same composite floor slab thickness.
- The end span is within plus 5% or minus 10% of the internal span and that the end and internal spans are both designed using the appropriate load span table.
- Double spans are within 10% of each other and the composite floor slab design is based on the largest span.
- Internal spans are within 10% of each other and the composite floor slab design is based on the largest internal span.
- Any variations to the above configurations require specific design.

9. Example: For a 0.75mm Hibond 55 composite floor slab of 130mm overall composite floor slab thickness on a double span of 3800mm we have the following:

**4.3 HD12@200**

where:

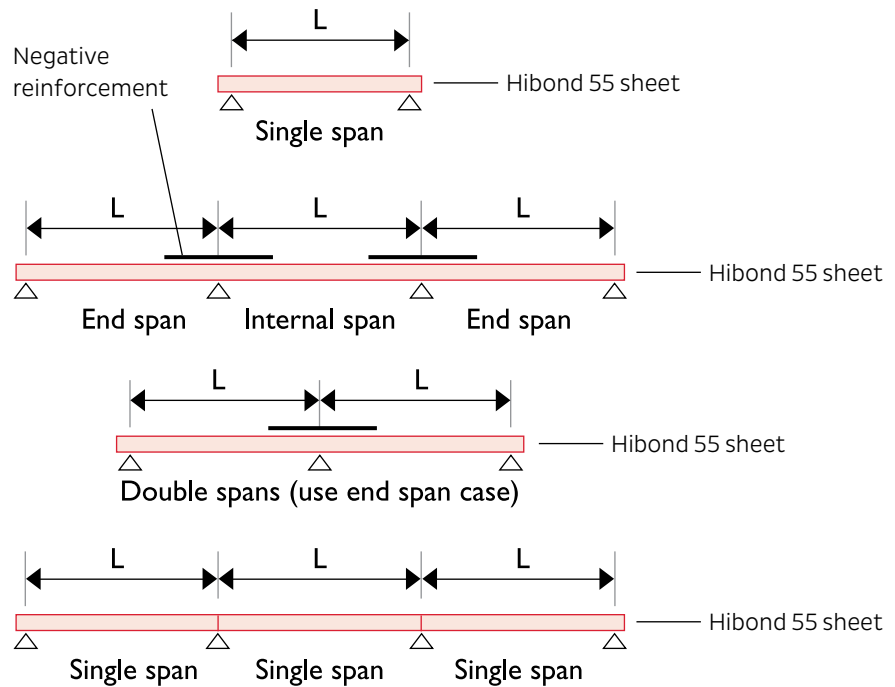
**4.3** = Superimposed load kPa

HD12@200 = HD12 negative reinforcing (saddle bars) placed at 200mm centres to achieve the superimposed load.

10. Steel areas in the double or end and internal span tables are calculated based on HD12 reinforcing bars (12mm diameter grade 500 to AS/NZS 4671) placed at 25mm top cover (A1 exposure classification – NZS 3101). Areas for other bar types, covers and sizes require specific design.

11. Negative reinforcement must be placed on top of the mesh parallel with the Hibond 55 ribs at spacings indicated in the tables for the span and composite floor slab thickness considered.
12. Negative reinforcement must extend at least 0.25 of the largest composite floor span plus 450mm each side of the centre line of the support.
13. The same negative reinforcing is required for both propped and unpropped construction.
14. Vibration limits expressed as maximum spans in the tables refer to:
  - - - - - Commercial offices, open plan with few small partitions (damping ratio = 0.025)
  - Residences with many full height partitions (damping ratio = 0.05)
 Specific design is required for other floor uses. Refer Hibond 55 Design Examples 3.4.8.
15. For intermediate values, linear interpolation is permitted.

**Typical Composite Floor Slab Span Configurations**



This configuration requires minimum nominal continuity reinforcement to be placed over the supports, refer Additional Reinforcement in Section 3.4.2.2.

### 0.75mm Hibond 55 Composite Floor Slab – Single Spans Medium Term Superimposed Loads (kPa)

L <sub>SS</sub> (mm)	Slab Thickness, D <sub>s</sub> (mm)									
	110	120	130	140	150	160	170	180	190	200
2000	16.2	19.6	21.0							
2200	13.3	16.1	17.2	19.3	21.4					
2400	11.2	13.5	14.3	16.0	17.7	19.5	21.4			
2600	9.5	11.4	12.1	13.5	14.9	16.4	17.9	19.4	20.8	
2800	8.2	9.8	10.4	11.5	12.7	13.9	15.1	16.3	17.5	18.8
3000	7.1	8.5	9.0	9.9	10.9	11.9	12.9	13.9	14.8	15.9
3200	6.2	7.4	7.8	8.6	9.4	10.3	11.1	11.9	12.7	13.6
3400	5.5	6.5	6.9	7.5	8.2	8.9	9.6	10.3	10.9	11.6
3600	4.9	5.8	6.1	6.6	7.2	7.8	8.4	8.9	9.5	10.1
3800	4.4	5.2	5.4	5.9	6.4	6.9	7.4	7.8	8.3	8.7
4000	4.0	4.7	4.8	5.3	5.7	6.1	6.5	6.9	7.2	7.6
4200	3.6	4.2	4.3	4.7	5.1	5.4	5.8	6.1	6.3	6.7
4400	2.9	3.8	3.9	4.2	4.5	4.8	5.1	5.4	5.6	5.8
4600	2.3	3.3	3.6	3.8	4.1	4.3	4.6	4.8	5.0	5.1
4800	1.8	2.6	3.2	3.5	3.7	3.9	4.1	4.3	4.4	4.5
5000		2.0	2.9	3.2	3.3	3.5	3.7	3.8	3.9	4.0
5200		1.6	2.3	2.9	3.0	3.2	3.3	3.4	3.5	3.6
5400			1.8	2.6	2.8	2.9	3.0	3.1	3.1	3.1
5600				2.1	2.5	2.6	2.7	2.7	2.8	2.8
5800				1.6	2.3	2.4	2.5	2.5	2.5	2.5
6000					1.8	2.2	2.2	2.2	2.2	2.2

### 0.75mm Hibond 55 Composite Floor Slab – Single Spans Long Term Superimposed Loads (kPa)

L <sub>SS</sub> (mm)	Slab Thickness, D <sub>s</sub> (mm)									
	110	120	130	140	150	160	170	180	190	200
2000	16.2	19.6	21.0							
2200	13.3	16.1	17.2	19.3	21.4					
2400	11.2	13.5	14.3	16.0	17.7	19.5	21.4			
2600	9.5	11.4	12.1	13.5	14.9	16.4	17.9	19.4	20.8	
2800	8.2	9.8	10.4	11.5	12.7	13.9	15.1	16.3	17.5	18.8
3000	7.1	8.5	9.0	9.9	10.9	11.9	12.9	13.9	14.8	15.9
3200	6.2	7.4	7.8	8.6	9.4	10.3	11.1	11.9	12.7	13.6
3400	5.4	6.5	6.9	7.5	8.2	8.9	9.6	10.3	10.9	11.6
3600	4.3	5.7	6.1	6.6	7.2	7.8	8.4	8.9	9.5	10.1
3800	3.4	4.6	5.4	5.9	6.4	6.9	7.4	7.8	8.3	8.7
4000	2.6	3.6	4.8	5.3	5.7	6.1	6.5	6.9	7.2	7.6
4200	2.0	2.8	3.9	4.7	5.1	5.4	5.8	6.1	6.3	6.7
4400		2.2	3.1	4.2	4.5	4.8	5.1	5.4	5.6	5.8
4600		1.6	2.4	3.3	4.1	4.3	4.6	4.8	5.0	5.1
4800			1.8	2.6	3.5	3.9	4.1	4.3	4.4	4.5
5000				2.0	2.8	3.5	3.7	3.8	3.9	4.0
5200					2.1	2.9	3.3	3.4	3.5	3.6
5400					1.6	2.3	3.0	3.1	3.1	3.1
5600						1.7	2.4	2.7	2.8	2.8
5800							1.8	2.5	2.5	2.5
6000								2.0	2.2	2.2

0.75mm Hibond 55 Composite Floor Slab – Double and End Spans  
Medium and Long Term Superimposed Loads (kPa) and Negative Reinforcement (mm<sup>2</sup>/m width)

3.4.5

L (mm)	Slab Thickness, D <sub>s</sub> (mm)																				
	110	120	130	140	150	160	170	180	190	200											
2000	12.9	HD12@300	15.7	HD12@250	16.8	HD12@300	18.8	HD12@250	21.0	HD12@300											
2200	10.7	HD12@250	12.9	HD12@250	13.8	HD12@250	15.4	HD12@250	17.1	HD12@300	18.9	HD12@250	20.8	HD12@250							
2400	8.9	HD12@250	10.8	HD12@250	11.5	HD12@250	12.8	HD12@250	14.2	HD12@250	15.6	HD12@250	17.1	HD12@250	18.6	HD12@250	20.1	HD12@250			
2600	7.6	HD12@250	9.1	HD12@250	9.7	HD12@250	10.8	HD12@250	11.9	HD12@250	13.1	HD12@250	14.3	HD12@250	15.5	HD12@250	16.7	HD12@250	17.9	HD12@250	
2800	6.4	HD12@250	7.8	HD12@250	8.3	HD12@250	9.2	HD12@250	10.1	HD12@250	11.1	HD12@250	12.1	HD12@250	13.0	HD12@250	14.0	HD12@250	15.0	HD12@250	
3000	5.3	HD12@250	6.8	HD12@200	7.2	HD12@250	7.9	HD12@250	8.7	HD12@250	9.5	HD12@250	10.3	HD12@250	11.1	HD12@250	11.9	HD12@250	12.7	HD12@250	
3200	4.5	HD12@250	5.9	HD12@200	6.2	HD12@200	6.9	HD12@250	7.5	HD12@250	8.2	HD12@250	8.9	HD12@250	9.5	HD12@250	10.2	HD12@250	10.8	HD12@250	
3400	3.8	HD12@250	5.0	HD12@200	5.5	HD12@200	6.0	HD12@200	6.6	HD12@250	7.1	HD12@250	7.7	HD12@250	8.2	HD12@250	8.7	HD12@250	9.3	HD12@250	
3600	3.2	HD12@250	4.3	HD12@200	4.9	HD12@200	5.3	HD12@200	5.8	HD12@250	6.3	HD12@250	6.7	HD12@250	7.2	HD12@250	7.6	HD12@250	8.0	HD12@250	
3800	2.7	HD12@250	3.6	HD12@200	4.3	HD12@200	4.7	HD12@200	5.1	HD12@200	5.5	HD12@250	5.9	HD12@250	6.3	HD12@250	6.6	HD12@250	7.0	HD12@250	
4000	2.2	HD12@250	3.1	HD12@200	3.9	HD12@200	4.2	HD12@200	4.5	HD12@200	4.9	HD12@200	5.2	HD12@250	5.5	HD12@250	5.8	HD12@250	6.1	HD12@250	
4200	1.9	HD12@250	2.6	HD12@200	3.5	HD12@200	3.8	HD12@200	4.0	HD12@200	4.3	HD12@200	4.6	HD12@200	4.9	HD12@250	5.1	HD12@250	5.3	HD12@250	
4400			2.2	HD12@200	3.0	HD12@200	3.4	HD12@200	3.6	HD12@200	3.9	HD12@200	4.1	HD12@200	4.3	HD12@200	4.5	HD12@250	4.7	HD12@250	
4600			1.8	HD12@200	2.5	HD12@200	3.1	HD12@200	3.3	HD12@200	3.5	HD12@200	3.7	HD12@200	3.8	HD12@200	4.0	HD12@200	4.1	HD12@250	
4800					2.1	HD12@200	2.8	HD12@200	2.9	HD12@200	3.1	HD12@200	3.3	HD12@200	3.4	HD12@200	3.5	HD12@200	3.6	HD12@200	
5000					1.8	HD12@200	2.4	HD12@200	2.7	HD12@150	2.8	HD12@200	3.0	HD12@200	3.0	HD12@200	3.1	HD12@200	3.2	HD12@200	
5200							2.1	HD12@200	2.4	HD12@150	2.6	HD12@200	2.7	HD12@200	2.7	HD12@200	2.8	HD12@200	2.8	HD12@200	
5400							1.8	HD12@200	2.2	HD12@150	2.3	HD12@150	2.4	HD12@200	2.4	HD12@200	2.5	HD12@200	2.5	HD12@200	
5600									2.0	HD12@150	2.1	HD12@150	2.2	HD12@150	2.2	HD12@200	2.2	HD12@200	2.2	HD12@200	
5800									1.7	HD12@150	1.9	HD12@150	2.0	HD12@150	2.0	HD12@150	2.0	HD12@200	2.0	HD12@200	
6000											1.8	HD12@150	1.8	HD12@150	1.8	HD12@150	1.8	HD12@200	1.8	HD12@200	

0.75mm Hibond 55 Composite Floor Slab – Internal Spans  
Medium and Long Term Superimposed Loads (kPa) and Negative Reinforcement (mm<sup>2</sup>/m width)

3.4.5

L (mm)	Slab Thickness, D <sub>s</sub> (mm)																			
	110	120	130	140	150	160	170	180	190	200										
2000	17.2	HD12@250	22.4	HD12@200																
2200	14.0	HD12@250	18.2	HD12@200	21.6	HD12@200														
2400	11.5	HD12@250	15.1	HD12@200	18.3	HD12@200	20.5	HD12@200	21.3	HD12@200	19.3	HD12@200	19.8	HD12@200	20.3	HD12@200	18.9	HD12@200	19.0	HD12@200
2600	9.6	HD12@250	12.6	HD12@200	15.5	HD12@200	16.7	HD12@200	17.2	HD12@200	17.6	HD12@200	18.1	HD12@200	18.5	HD12@200	18.9	HD12@200	18.9	HD12@200
2800	8.1	HD12@250	10.7	HD12@200	13.3	HD12@200	14.8	HD12@200	14.8	HD12@200	16.2	HD12@200	16.6	HD12@200	16.9	HD12@200	17.3	HD12@200	17.6	HD12@200
3000	6.9	HD12@250	9.1	HD12@200	11.4	HD12@200	12.8	HD12@200	12.8	HD12@200	14.9	HD12@200	15.3	HD12@200	15.6	HD12@200	15.9	HD12@200	16.2	HD12@200
3200	5.9	HD12@250	7.8	HD12@200	9.8	HD12@200	11.2	HD12@200	11.2	HD12@200	13.6	HD12@200	14.1	HD12@200	14.4	HD12@200	14.7	HD12@200	15.0	HD12@200
3400	5.1	HD12@250	6.7	HD12@200	8.5	HD12@200	9.8	HD12@200	9.8	HD12@200	11.8	HD12@200	12.9	HD12@200	13.4	HD12@200	13.6	HD12@200	13.9	HD12@200
3600	4.4	HD12@250	5.9	HD12@200	7.4	HD12@200	8.7	HD12@200	8.7	HD12@200	10.4	HD12@200	11.3	HD12@200	12.2	HD12@200	12.7	HD12@200	12.9	HD12@200
3800	3.8	HD12@250	5.1	HD12@200	6.5	HD12@200	7.7	HD12@200	7.7	HD12@200	9.2	HD12@200	10.0	HD12@200	10.8	HD12@200	11.5	HD12@200	12.0	HD12@200
4000	3.3	HD12@250	4.5	HD12@200	5.7	HD12@200	6.9	HD12@200	6.9	HD12@200	8.2	HD12@200	8.9	HD12@200	9.5	HD12@200	10.2	HD12@200	10.8	HD12@200
4200	2.8	HD12@250	3.9	HD12@200	5.0	HD12@200	6.2	HD12@200	6.2	HD12@200	7.3	HD12@200	7.9	HD12@200	8.5	HD12@200	9.0	HD12@200	9.6	HD12@200
4400	2.5	HD12@250	3.4	HD12@200	4.4	HD12@200	5.5	HD12@200	5.5	HD12@200	6.6	HD12@200	7.1	HD12@200	7.6	HD12@200	8.0	HD12@200	8.5	HD12@200
4600	2.1	HD12@250	3.0	HD12@200	3.9	HD12@200	4.8	HD12@200	4.8	HD12@200	5.9	HD12@200	6.4	HD12@200	6.8	HD12@200	7.2	HD12@200	7.6	HD12@200
4800	1.9	HD12@250	2.6	HD12@200	3.4	HD12@200	4.3	HD12@200	4.3	HD12@200	5.4	HD12@200	5.8	HD12@200	6.1	HD12@200	6.4	HD12@200	6.8	HD12@200
5000	1.6	HD12@250	2.3	HD12@200	3.0	HD12@200	3.8	HD12@200	3.8	HD12@200	4.9	HD12@200	5.2	HD12@200	5.5	HD12@200	5.8	HD12@200	6.1	HD12@200
5200	2.0	HD12@200	2.7	HD12@200	3.4	HD12@200	4.1	HD12@200	4.1	HD12@200	4.4	HD12@200	4.7	HD12@200	5.0	HD12@200	5.2	HD12@200	5.5	HD12@200
5400	1.8	HD12@200	2.3	HD12@200	3.0	HD12@200	3.0	HD12@200	3.0	HD12@200	4.1	HD12@200	4.3	HD12@200	4.5	HD12@200	4.7	HD12@200	4.9	HD12@200
5600	1.5	HD12@200	2.1	HD12@200	2.7	HD12@200	2.7	HD12@200	2.7	HD12@200	3.7	HD12@200	3.9	HD12@200	4.1	HD12@200	4.3	HD12@200	4.4	HD12@200
5800			1.8	HD12@200	2.4	HD12@200	3.0	HD12@200	3.0	HD12@200	3.4	HD12@200	3.6	HD12@200	3.7	HD12@200	3.9	HD12@200	4.0	HD12@200
6000			1.6	HD12@200	2.1	HD12@200	2.7	HD12@200	2.7	HD12@200	3.1	HD12@200	3.3	HD12@200	3.4	HD12@200	3.5	HD12@200	3.6	HD12@200
6200			1.8	HD12@200	2.4	HD12@200	3.0	HD12@200	3.0	HD12@200	2.9	HD12@200	3.0	HD12@200	3.1	HD12@200	3.2	HD12@200	3.3	HD12@200
6400			1.6	HD12@200	2.1	HD12@200	2.7	HD12@200	2.7	HD12@200	2.6	HD12@200	2.8	HD12@200	2.8	HD12@200	2.9	HD12@200	3.0	HD12@200
6600					1.9	HD12@200	2.3	HD12@200	2.3	HD12@200	2.3	HD12@200	2.5	HD12@200	2.6	HD12@200	2.7	HD12@200	2.7	HD12@200
6800					1.6	HD12@200	2.1	HD12@200	2.1	HD12@200	2.1	HD12@200	2.4	HD12@200	2.4	HD12@200	2.4	HD12@200	2.5	HD12@200
7000							1.8	HD12@200	2.2	HD12@200	2.2	HD12@200	2.2	HD12@200	2.2	HD12@200	2.2	HD12@200	2.2	HD12@200

### 0.95mm Hibond 55 Composite Floor Slab – Single Spans Medium Term Superimposed Loads (kPa)

L <sub>SS</sub> (mm)	Slab Thickness, D <sub>s</sub> (mm)									
	110	120	130	140	150	160	170	180	190	200
2000	17.8	21.7								
2200	14.7	17.8	19.1	21.4						
2400	12.3	14.9	15.9	17.8	19.8	21.9				
2600	10.5	12.6	13.5	15.0	16.7	18.4	20.1	21.9		
2800	9.0	10.9	11.5	12.8	14.2	15.6	17.1	18.5	19.9	21.4
3000	7.8	9.4	10.0	11.1	12.2	13.4	14.6	15.8	16.9	18.2
3200	6.9	8.2	8.7	9.6	10.6	11.6	12.6	13.6	14.5	15.6
3400	6.1	7.3	7.6	8.4	9.2	10.1	10.9	11.8	12.6	13.4
3600	5.4	6.4	6.8	7.5	8.1	8.9	9.6	10.3	10.9	11.7
3800	4.9	5.8	6.0	6.6	7.2	7.8	8.4	9.0	9.6	10.2
4000	4.4	5.2	5.4	5.9	6.4	6.9	7.5	7.9	8.4	8.9
4200	4.0	4.7	4.9	5.3	5.7	6.2	6.6	7.0	7.4	7.8
4400	3.3	4.2	4.4	4.8	5.2	5.5	5.9	6.3	6.6	6.9
4600	2.7	3.8	4.0	4.3	4.6	5.0	5.3	5.6	5.8	6.1
4800	2.1	3.0	3.6	3.9	4.2	4.5	4.8	5.0	5.2	5.4
5000	1.6	2.4	3.3	3.6	3.8	4.1	4.3	4.5	4.7	4.8
5200		1.9	2.8	3.3	3.5	3.7	3.9	4.0	4.2	4.3
5400			2.2	3.0	3.2	3.4	3.5	3.6	3.7	3.9
5600			1.7	2.5	2.9	3.1	3.2	3.3	3.4	3.5
5800				2.0	2.7	2.8	2.9	3.0	3.0	3.1
6000				1.5	2.2	2.6	2.7	2.7	2.7	2.8

### 0.95mm Hibond 55 Composite Floor Slab – Single Spans Long Term Superimposed Loads (kPa)

L <sub>SS</sub> (mm)	Slab Thickness, D <sub>s</sub> (mm)									
	110	120	130	140	150	160	170	180	190	200
2000	17.8	21.7								
2200	14.7	17.8	19.1	21.4						
2400	12.3	14.9	15.9	17.8	19.8	21.9				
2600	10.5	12.6	13.5	15.0	16.7	18.4	20.1	21.9		
2800	9.0	10.9	11.5	12.8	14.2	15.6	17.1	18.5	19.9	21.4
3000	7.8	9.4	10.0	11.1	12.2	13.4	14.6	15.8	16.9	18.2
3200	6.9	8.2	8.7	9.6	10.6	11.6	12.6	13.6	14.5	15.6
3400	5.9	7.3	7.6	8.4	9.2	10.1	10.9	11.8	12.6	13.4
3600	4.9	6.4	6.8	7.5	8.1	8.9	9.6	10.3	10.9	11.7
3800	3.9	5.3	6.0	6.6	7.2	7.8	8.4	9.0	9.6	10.2
4000	3.0	4.2	5.4	5.9	6.4	6.9	7.5	7.9	8.4	8.9
4200	2.4	3.3	4.6	5.3	5.7	6.2	6.6	7.0	7.4	7.8
4400	1.8	2.6	3.6	4.8	5.2	5.5	5.9	6.3	6.6	6.9
4600		2.0	2.9	3.9	4.6	5.0	5.3	5.6	5.8	6.1
4800		1.5	2.2	3.1	4.2	4.5	4.8	5.0	5.2	5.4
5000			1.7	2.4	3.3	4.1	4.3	4.5	4.7	4.8
5200				1.9	2.6	3.5	3.9	4.0	4.2	4.3
5400					2.0	2.8	3.5	3.6	3.7	3.9
5600					1.5	2.2	3.0	3.3	3.4	3.5
5800						1.7	2.3	3.0	3.0	3.1
6000							1.8	2.5	2.7	2.8

0.95mm Hibond 55 Composite Floor Slab – Double and End Spans  
Medium and Long Term Superimposed Loads (kPa) and Negative Reinforcement (mm<sup>2</sup>/m width)

3.4.5

L (mm)	Slab Thickness, D <sub>s</sub> (mm)									
	110	120	130	140	150	160	170	180	190	200
2000	14.2 HD12@250	17.3 HD12@200	18.6 HD12@250	20.9 HD12@250						
2200	11.4 HD12@250	14.3 HD12@200	15.3 HD12@250	17.1 HD12@250	19.1 HD12@250	21.2 HD12@250				
2400	9.3 HD12@250	11.9 HD12@200	12.7 HD12@250	14.3 HD12@250	15.8 HD12@250	17.5 HD12@250	19.2 HD12@250	20.9 HD12@250		
2600	7.7 HD12@250	10.1 HD12@200	10.8 HD12@250	12.0 HD12@250	13.3 HD12@250	14.7 HD12@250	16.1 HD12@250	17.5 HD12@250	18.9 HD12@250	20.0 HD12@250
2800	6.4 HD12@250	8.4 HD12@200	9.2 HD12@250	10.3 HD12@250	11.3 HD12@250	12.5 HD12@250	13.6 HD12@250	14.8 HD12@250	15.9 HD12@250	17.2 HD12@250
3000	5.3 HD12@250	7.1 HD12@200	8.0 HD12@250	8.9 HD12@200	9.8 HD12@200	10.7 HD12@200	11.7 HD12@200	12.6 HD12@250	13.5 HD12@250	14.6 HD12@200
3200	4.5 HD12@250	6.0 HD12@200	7.0 HD12@200	7.7 HD12@200	8.5 HD12@200	9.3 HD12@200	10.1 HD12@200	10.9 HD12@200	11.6 HD12@200	12.5 HD12@200
3400	3.8 HD12@250	5.1 HD12@200	6.1 HD12@200	6.8 HD12@200	7.4 HD12@200	8.1 HD12@200	8.8 HD12@200	9.4 HD12@200	10.0 HD12@200	10.7 HD12@200
3600	3.2 HD12@250	4.3 HD12@200	5.4 HD12@200	6.0 HD12@200	6.5 HD12@200	7.1 HD12@200	7.7 HD12@200	8.2 HD12@200	8.7 HD12@200	9.3 HD12@200
3800	2.7 HD12@250	3.7 HD12@200	4.8 HD12@200	5.3 HD12@200	5.8 HD12@200	6.3 HD12@200	6.7 HD12@200	7.2 HD12@200	7.6 HD12@200	8.1 HD12@200
4000	2.2 HD12@250	3.1 HD12@200	4.1 HD12@200	4.7 HD12@200	5.1 HD12@200	5.6 HD12@200	6.0 HD12@200	6.3 HD12@200	6.7 HD12@200	7.1 HD12@200
4200	1.9 HD12@250	2.6 HD12@200	3.5 HD12@200	4.2 HD12@200	4.6 HD12@200	5.0 HD12@200	5.3 HD12@200	5.6 HD12@200	5.9 HD12@200	6.3 HD12@200
4400		2.2 HD12@200	3.0 HD12@200	3.8 HD12@200	4.1 HD12@200	4.4 HD12@200	4.7 HD12@200	5.0 HD12@200	5.3 HD12@200	5.5 HD12@200
4600		1.9 HD12@200	2.6 HD12@200	3.4 HD12@150	3.7 HD12@150	4.0 HD12@200	4.2 HD12@200	4.5 HD12@200	4.7 HD12@200	4.9 HD12@200
4800			2.2 HD12@200	2.9 HD12@150	3.4 HD12@150	3.6 HD12@150	3.8 HD12@200	4.0 HD12@200	4.2 HD12@200	4.4 HD12@200
5000			1.8 HD12@200	2.5 HD12@150	3.1 HD12@150	3.3 HD12@150	3.4 HD12@200	3.6 HD12@200	3.7 HD12@200	3.9 HD12@200
5200				2.1 HD12@150	2.8 HD12@150	3.0 HD12@150	3.1 HD12@150	3.2 HD12@200	3.3 HD12@200	3.5 HD12@200
5400				1.8 HD12@150	2.4 HD12@150	2.7 HD12@150	2.8 HD12@150	2.9 HD12@150	3.0 HD12@200	3.1 HD12@200
5600					2.1 HD12@150	2.5 HD12@150	2.6 HD12@150	2.6 HD12@150	2.7 HD12@150	2.8 HD12@200
5800					1.7 HD12@150	2.2 HD12@150	2.3 HD12@150	2.4 HD12@150	2.4 HD12@150	2.5 HD12@150
6000						2.0 HD12@150	2.1 HD12@150	2.2 HD12@150	2.2 HD12@150	2.2 HD12@150

0.95mm Hibond 55 Composite Floor Slab – Internal Spans  
Medium and Long Term Superimposed Loads (kPa) and Negative Reinforcement (mm<sup>2</sup>/m width)

3.4.5

L (mm)	Slab Thickness, D <sub>s</sub> (mm)										
	110	120	130	140	150	160	170	180	190	200	
2000	17.2 HD12@250	22.4 HD12@200									
2200	14.0 HD12@250	18.2 HD12@200	23.0 HD12@200								
2400	11.5 HD12@250	15.1 HD12@200	19.1 HD12@200	22.8 HD12@150							
2600	9.6 HD12@250	12.6 HD12@200	16.0 HD12@200	19.3 HD12@150	21.5 HD12@150						
2800	8.1 HD12@250	10.7 HD12@200	13.6 HD12@200	16.5 HD12@150	18.4 HD12@150	19.4 HD12@200	19.9 HD12@200	20.3 HD12@200			
3000	6.9 HD12@250	9.1 HD12@200	11.6 HD12@200	14.1 HD12@150	15.8 HD12@150	17.5 HD12@150	18.3 HD12@150	18.7 HD12@200	19.1 HD12@200	19.5 HD12@200	
3200	5.9 HD12@250	7.8 HD12@200	10.0 HD12@200	12.2 HD12@150	13.8 HD12@150	15.2 HD12@150	16.7 HD12@150	17.4 HD12@150	17.7 HD12@200	18.0 HD12@200	
3400	5.1 HD12@250	6.7 HD12@200	8.7 HD12@200	10.6 HD12@150	12.1 HD12@150	13.3 HD12@150	14.6 HD12@150	15.8 HD12@150	16.5 HD12@150	16.8 HD12@200	
3600	4.4 HD12@250	5.9 HD12@200	7.6 HD12@200	9.3 HD12@150	10.7 HD12@150	11.7 HD12@150	12.8 HD12@150	13.9 HD12@150	14.9 HD12@150	15.6 HD12@150	
3800	3.8 HD12@250	5.1 HD12@200	6.6 HD12@200	8.1 HD12@150	9.5 HD12@150	10.4 HD12@150	11.3 HD12@150	12.2 HD12@150	13.1 HD12@150	14.1 HD12@150	
4000	3.3 HD12@250	4.5 HD12@200	5.8 HD12@200	7.2 HD12@150	8.5 HD12@150	9.3 HD12@150	10.1 HD12@150	10.8 HD12@150	11.6 HD12@150	12.5 HD12@150	
4200	2.8 HD12@250	3.9 HD12@200	5.1 HD12@200	6.3 HD12@150	7.6 HD12@150	8.3 HD12@150	9.0 HD12@150	9.7 HD12@150	10.3 HD12@150	11.1 HD12@150	
4400	2.5 HD12@250	3.4 HD12@200	4.5 HD12@200	5.6 HD12@150	6.8 HD12@150	7.5 HD12@150	8.1 HD12@150	8.7 HD12@150	9.2 HD12@150	9.9 HD12@150	
4600	2.1 HD12@250	3.0 HD12@200	4.0 HD12@200	5.0 HD12@150	6.0 HD12@150	6.7 HD12@150	7.3 HD12@150	7.8 HD12@150	8.3 HD12@150	8.8 HD12@150	
4800	1.9 HD12@250	2.6 HD12@200	3.5 HD12@200	4.4 HD12@150	5.4 HD12@150	6.1 HD12@150	6.6 HD12@150	7.0 HD12@150	7.4 HD12@150	7.9 HD12@150	
5000	1.6 HD12@250	2.3 HD12@200	3.1 HD12@200	3.9 HD12@150	4.8 HD12@150	5.6 HD12@150	6.0 HD12@150	6.3 HD12@150	6.7 HD12@150	7.1 HD12@150	
5200	2.0 HD12@200	2.7 HD12@200	3.5 HD12@200	4.3 HD12@150	5.1 HD12@150	5.9 HD12@150	6.4 HD12@150	6.8 HD12@150	7.1 HD12@150	7.4 HD12@150	
5400	1.8 HD12@200	2.4 HD12@200	3.2 HD12@200	4.0 HD12@150	4.8 HD12@150	5.6 HD12@150	6.0 HD12@150	6.3 HD12@150	6.7 HD12@150	7.1 HD12@150	
5600	1.5 HD12@200	2.1 HD12@200	2.9 HD12@200	3.7 HD12@150	4.5 HD12@150	5.3 HD12@150	5.7 HD12@150	6.0 HD12@150	6.4 HD12@150	6.8 HD12@150	
5800		1.9 HD12@200	2.7 HD12@200	3.5 HD12@150	4.3 HD12@150	5.1 HD12@150	5.5 HD12@150	5.8 HD12@150	6.1 HD12@150	6.4 HD12@150	
6000		1.6 HD12@200	2.4 HD12@200	3.2 HD12@150	4.0 HD12@150	4.8 HD12@150	5.2 HD12@150	5.5 HD12@150	5.8 HD12@150	6.1 HD12@150	
6200			1.9 HD12@150	2.7 HD12@150	3.5 HD12@150	4.3 HD12@150	5.1 HD12@150	5.9 HD12@150	6.7 HD12@150	7.5 HD12@150	
6400			1.7 HD12@150	2.5 HD12@150	3.3 HD12@150	4.1 HD12@150	4.9 HD12@150	5.7 HD12@150	6.5 HD12@150	7.3 HD12@150	
6600				1.9 HD12@150	2.7 HD12@150	3.5 HD12@150	4.3 HD12@150	5.1 HD12@150	5.9 HD12@150	6.7 HD12@150	
6800				1.7 HD12@150	2.5 HD12@150	3.3 HD12@150	4.1 HD12@150	4.9 HD12@150	5.7 HD12@150	6.5 HD12@150	
7000				1.9 HD12@150	2.7 HD12@150	3.5 HD12@150	4.3 HD12@150	5.1 HD12@150	5.9 HD12@150	6.7 HD12@150	