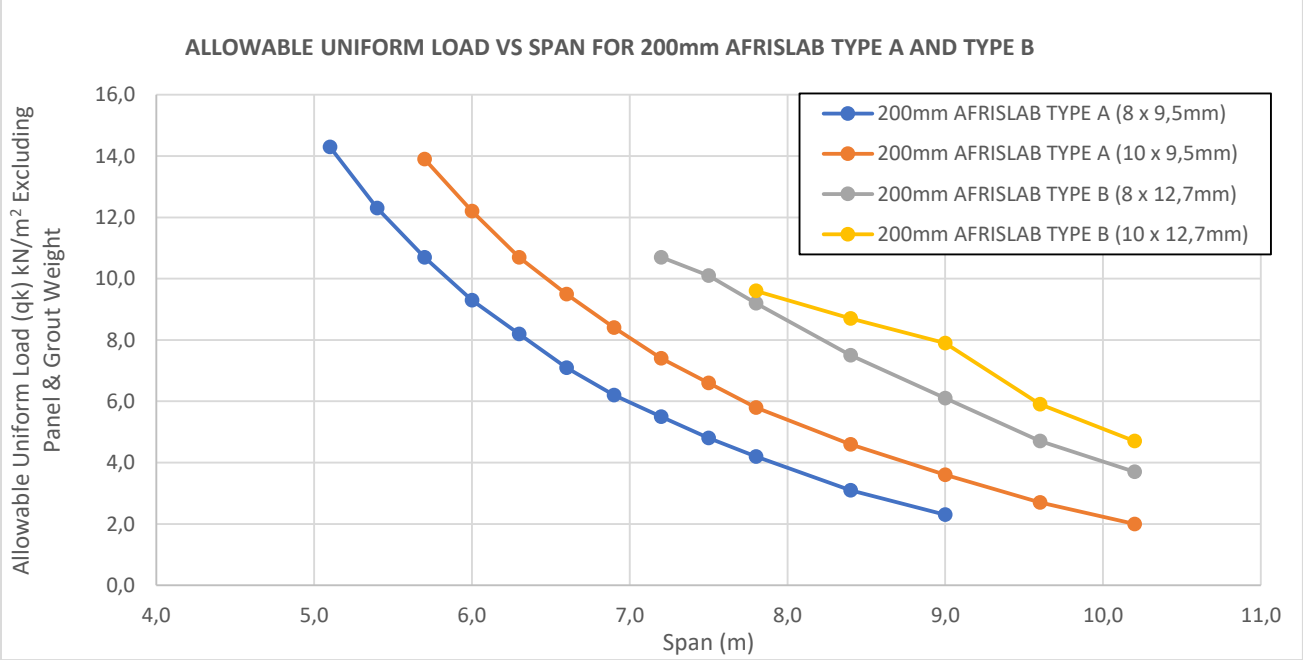
200mm AFRISLAB (HOLLOW CORE SLAB)
TECHNICAL SPECIFICATIONS AND ALLOWABLE LOADS

SLAB TYPE		200mm AFRISLAB TYPE A		200mm AFRISLAB TYPE B	
Prestressed Tendons		8 x 9,5mm	10 x 9,5mm	8 x 12,7mm	10 x 12,7mm
Tension Control Stress		$0,65f_{ptk}$	$0,65f_{ptk}$	$0,65f_{ptk}$	$0,65f_{ptk}$
Concrete Strength Grade		C50	C50	C50	C50
$[M_{cr}]$ kN.m		81,1	94,7	122,1	144,1
Allowable Bending Moment kN.m	$[M_u]$	85,2	104,6	143,3	172,9
	$[M_k]$	75,1	88,7	116,2	138,2
	$[M_q]$	58,1	71,6	99,1	121,1
Allowable Shear Force V_u (kN)		77,7		77,0	

SPAN (m)	ALLOWABLE UNIFORM LOAD (qk) kN/m^2 EXCLUDING PANEL & GROUT WEIGHT			
5,1	14,3			
5,4	12,3			
5,7	10,7	13,9		
6,0	9,3	12,2		
6,3	8,2	10,7		
6,6	7,1	9,5		
6,9	6,2	8,4		
7,2	5,5	7,4	10,7	
7,5	4,8	6,6	10,1	
7,8	4,2	5,8	9,2	9,6
8,4	3,1	4,6	7,5	8,7
9,0	2,3	3,6	6,1	7,9
9,6		2,7	4,7	5,9
10,2		2,0	3,7	4,7



LEGEND:
TYPE A = 9,5mm STRAND DIAMETER
TYPE B = 12,7mm STRAND DIAMETER

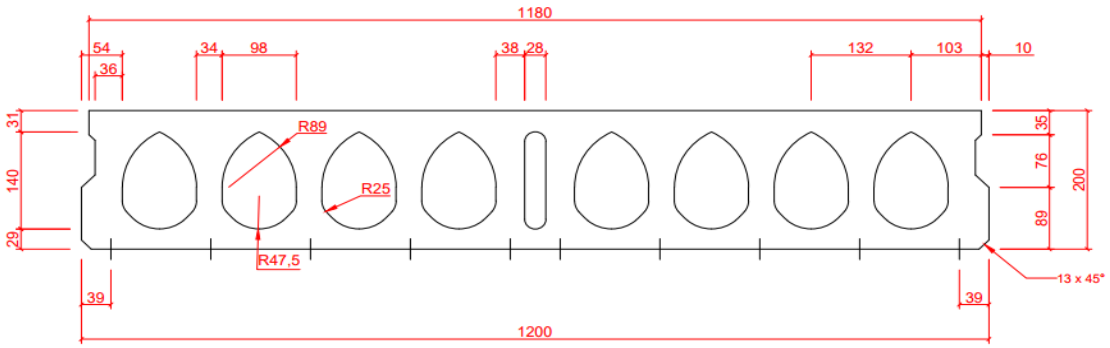
SECTIONAL CHARACTERISTICS AND MATERIAL QUANTITY TABLE

SLAB TYPE	CONCRETE COVER / PROTECTIVE LAYER	SLAB RIB WIDTH	SECTIONAL AREA	CENTRE OF GRAVITY BOTTOM EDGE DISTANCE	MOMENT OF INERTIA	SLAB SELF WEIGHT	GROUTING WEIGHT
	C (mm)	b1 (mm)	A (mm^2)	y (mm)	I (mm^4)	(kN/m^2)	(kN/m^2)
200mm Afrislab Type A	25	352	151 000	103	$6{,}80x10^8$	3,14	0,07
200mm Afrislab Type B							

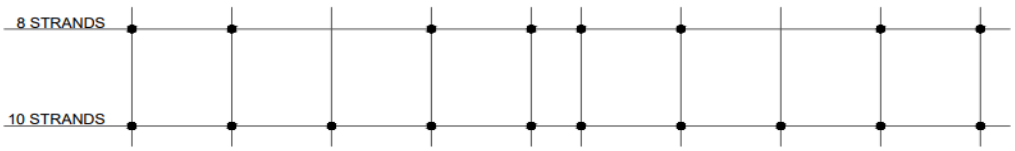
Note:

1. Fire rating 1 hour - Higher ratings can be achieved.
2. The allowable shear force V_U in the table refers to the design value of the shear bearing capacity of the section under the action of the uniform load.

3. In the table of Allowable Uniform Loads ① above the black line means that the value of [qk] is controlled by the design value of the shear bearing capacity and ② values in the block mean that the [qk] value is controlled by the deflection limit.



200mm AFRISLAB CROSS SECTION



200mm AFRISLAB STRAND LAYOUT