

Anchorage in concrete with Rebar **AGNI 420**

High bond Reinforcing Bars FYK = 500N/mm²

Rebar Diameter (mm)	Drill Hole Diameter (mm)	Design Resistance (N _{rd})														Steel failure load (kN)
		(kN)														
8	8-12	4.3	5.6	6.1	7.1	8.1	9.2	10.5	12.1	13.9	15.8					21.9
10	12-14	5.1	6.9	7.1	8.2	9.3	10.7	12.4	14.2	16.4	18.8	20.2	22.8			34.1
12	14-16	6.3	7.2	9.6	10.1	11.1	12.2	13.3	14.8	17.2	19.7	21.5	24.7	27.2	29.8	49.2
Depth (mm)		70	80	90	100	110	120	130	140	150	160	200	240	280	320	
16	18-20	10.6	12.9	14.2	17.4	20.1	24.5	26.9	29.6	32.6	35.9					87.4
20	25	11.4	13.5	15.9	18.7	22.1	26.5	29.1	31.9	35.2	38.8	42.7				136.6
				17.5	20.5	24.2	28.5	33.6	40.3	48.3	58.1	69.6	83.6			196.5
Depth (mm)		80	100	120	140	160	200	240	280	300	320	400	480	540		

High bond Reinforcing Bars FYK = 500N/mm²

Rebar Diameter (mm)	Drill Hole Diameter (mm)	Recommended Resistance (N _{rd})													
		(kN)													
8	8-12	1.1	3.2												
10	12-14	2.7	3.8	4.8	5.7	6.8	7.7	8.9							
12	14-16	3.1	4.1	5.1	5.9	7.1	8.2	9.1							
Depth (mm)		70	80	90	100	110	120	130	140	150	160	200	240	280	
16	18-20	5.8	7.2	9.1	10.9	13.1	15.7	18.8	20.9	22.8	27.3				
20	25	6.5	8.2	10.3	11.5	14.4	16.2	19.4	21.7	23.5	28.4	32.8			
25	30			11.1	12.2	15.3	17.1	20.6	22.8	25.1	30.2	34.4	41.2		
Depth (mm)		80	100	120	140	160	200	240	280	300	320	400	480	540	

Anchorage in concrete with Threaded rod 5.8 grade **AGNI420**

5.8 Grade Studing

Rebar Diameter (mm)	Drill Hole Diameter (mm)	Design Resistance (N _{rd})														Steel failure load (kN)
		(kN)														
8	10	5.3	6.1	7.3	8.7											
10	12		6.9	9.1	11.5											20.1
12	14		7.2	9.6	12.1	15.6	19.5									29.2
Depth (mm)		70	80	90	100	110	120	130	140	150	160	200	240	280		
16	18	9.6	12.9	17.2	21.5	26.8	29.8									54.4
20	24		16.7	20.9	24.1	27.1	31.1	35.7	41.3							84.9
24	28		19.8	23.7	28.8	30.9	34.5	39.5	45.4	51.1	56.8	62.5				122.4
Depth (mm)		80	100	120	140	160	200	240	280	300	320	400	480	540		

5.8 Grade steel Studying

Rebar Diameter (mm)	Drill Hole Diameter (mm)	Recommended Resistance (N _{rd})														
		(kN)														
8	10	3.5	4.4													
10	12	4.1	5.8	6.6	7.3											
12	14	4.8	6.4	7.28	8.01	8.9										
Depth (mm)		70	80	90	100	110	120	130	140	150	160	200	240	280		
16	18	6.9	9.2	12.3												
20	24	7.8	10.1	13.1	15.3	18.1	21.7	26.4								
24	28		11.3	14.2	16.6	19.6	23.1	27.7	33.2	39.9	47.8	57.4				
Depth (mm)		80	100	120	140	160	200	240	280	300	320	400	480	540		