

Shallow Embedment – Flange Head

Performance Data (C20/25 non-cracked Concrete)

Drill Diam	Embedment Depth	Minimum Concrete Thickness	Characteristic Resistance		Design Resistance		Approved Resistance		Spacing	Edge Distance	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
mm	mm	mm	kN		kN		kN		mm	mm	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
6	30	100	3.9	3.8	2.1	2.5	1.5	1.8	55	40	50
8	40	100	6.3	6.4	2.9	4.3	2.0	3.0	70	50	55
10	50	100	9.1	9.1	5.0	5.9	3.5	4.2	95	65	65
12	60	115	12.8	12.7	7.0	8.5	5.0	6.0	120	80	80

Deep Embedment – Flange Head

Performance Data (C20/25 non-cracked Concrete)

Drill Diam	Embedment Depth	Minimum Concrete Thickness	Characteristic Resistance		Design Resistance		Approved Resistance		Spacing	Edge Distance	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
mm	mm	mm	kN		kN		kN		mm	mm	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
6	70	110	5.0	9.0	2.7	7.1	1.9	5.0	45	45	75
8	85	135	9.0	18.8	4.2	12.5	3.0	8.9	50	50	115
10	100	150	16.0	26.8	10.6	20.8	7.5	14.8	120	70	180

Performance Data (C20/25 Cracked Concrete)

Drill Diam	Embedment Depth	Minimum Concrete Thickness	Characteristic Resistance		Design Resistance		Approved Resistance		Spacing	Edge Distance	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
mm	mm	mm	kN		kN		kN		mm	mm	
			Tensile	Shear	Tensile	Shear	Tensile	Shear		Tensile	Shear*
6	70	110	3.5	9.0	2.7	7.1	1.9	5.0	45	45	75
8	85	135	4.5	13.4	2.1	8.9	1.5	6.3	50	50	115
10	100	150	7.0	22.4	4.6	14.8	3.2	10.5	172	60	180

* Shear towards a free edge

Shear Loads towards a free edge are for single anchors where Spacing $\geq 3 \times$ Edge Distance

[6mm anchor loads are for multiple use applications]