

Mean ultimate loads and recommended loads for single anchors of fischer Aircrete anchor GB.

Fixing type				GB 8	GB 10	GB 14
Anchorage depth			$h_v \geq$ [mm]	50	55	75
Drill hole depth			$h_v \geq$ [mm]	60	64	90
Drill hole diameter			d_0 [mm]	8	10	14
Mean ultimate loads $N_{u,m}$ and $V_{u,m}$ [kN]*						
Tensile	$N_{u,m}$	0°	PB2, PP2 [kN]	1.2	1.3	2.3
			PB4, PP4, P3.3 [kN]	2.3	3.1	5.1
			PB6, PP6, P4.4 [kN]	2.6	3.8	5.6
Shear	$V_{u,m}$	90°	PB2, PP2 [kN]	1.6 ¹⁾	1.9 ^{1)/1.3²⁾}	3.5 ^{1)/3.1²⁾}
			PB4, PP4, P3.3 [kN]	2.9 ¹⁾	4.1 ^{1)/2.7²⁾}	6.3 ^{1)/4.8²⁾}
			PB6, PP6, P4.4 [kN]	3.7 ¹⁾	5.0 ^{1)/3.3²⁾}	6.5 ¹⁾²⁾
Recommended loads N_{rec} and V_{rec} [kN]						
Tensile	N_{rec}	0°	PB2, PP2 [kN]	0.25	0.30	0.50
			PB4, PP4, P3.3 [kN]	0.40	0.60	1.00
			PB6, PP6, P4.4 [kN]	0.50	0.80	1.20
Shear	V_{rec}	90°	PB2, PP2 [kN]	0.25	0.30	0.70
			PB4, PP4, P3.3 [kN]	0.40	0.6 ^{1)/0.4²⁾}	1.0 ^{1)/0.7²⁾}
			PB6, PP6, P4.4 [kN]	0.50	0.8 ^{1)/0.5²⁾}	1.20
Recommended bending moments						
Safety screws, zinc plated			[Nm]	2.5	9.2	23.0
Safety screws, stainless steel			[Nm]	2.2	8.1	20.1
Component dimensions, axial spacing and edge distance						
Axial spacing		$a \geq$	\geq PB2, PP2 (G2) [mm]	100	150	200
			\geq PB4, PP4 (G4)/ \geq P3.3 (GB3.3) [mm]	150	200	300
Min. axial spacing ³⁾		Min. $a \geq$	[mm]	100	100	100
Edge distance ⁴⁾ to edge of component and non-mortared joints in general, in non-load bearing masonry without proof of overturning		$a_r \geq$	\geq PB2, PP2 (G2) [mm]	75	100	150
			\geq PB4, PP4(G4)/ \geq P3.3 (GB3.3) [mm]	100	150	200
Edge distance to mortared joints		$a_r \geq$	[mm]	9	9	12
Min. component thickness		$d =$	[mm]	75	75	200
Min. comp. thickness in tensile zone ⁵⁾		$d =$	[mm]	-	-	150

* The ultimate loads are valid for ambient temperature.

²⁾ Thickness of fixture (profile, steel): 100 mm.

⁴⁾ With shear load towards a free unloaded edge and at full exploitation of the recommended load, the figures for the axial distances should be selected for the edge distances.

¹⁾ Thickness of fixture (steel plate): 10 mm.

³⁾ Applies for simultaneous reduction of the recommended loads according to approval section 6.1.

⁵⁾ In the tensile zone of reinforced panels, 15 cm are required only.

Screw selection table

Fixing type	Usable length		Safety screw dimension	Screw material			
	t_{fix} [mm] min.	[mm] max.		zinc plated and passivated steel 6.8		A4 stainless steel 1.4401 / 1.4571	
GB 8	5	30	5 x 85	● ¹⁾		● ¹⁾	
	0	3	7 x 65		●		●
	5	23	7 x 85	●	●	●	●
	25	43	7 x 105	●	●	●	●
GB 10	40	58	7 x 120	●	●	●	●
	60	78	7 x 140	●	●	●	●
	85	103	7 x 165	●	●	●	●
	110	128	7 x 190	●	●	●	●
	155	173	7 x 235	●	●	●	●

¹⁾ Cross drive recess Z

● Standard range.

Fixing type	Usable length		Safety screw dimension	Screw material			
	d_a [mm] min.	[mm] max.		zinc plated and passivated steel 6.8		A4 stainless steel 1.4401 / 1.4571	
GB 14	0	10	10 x 95		●		
	0	20	10 x 105	●	●		●
	35	55	10 x 140	●	●	●	●
	60	80	10 x 165	●	●	●	●
	85	105	10 x 190	●	●	●	●
	100	120	10 x 205	●	●	●	●
	130	150	10 x 235	●	●	●	●
	160	180	10 x 265	●	●	●	●
	190	210	10 x 295	●	●	●	●
	220	240	10 x 325	●	●	●	●
	260	280	10 x 365	●	●	●	●