

Aircrete anchor FPX-I

Permissible loads¹⁾ and required component dimensions in cracked and non-cracked aerated concrete wall and slab plates.
 For the design the complete current assessment ETA-12/0456 has to be considered.

Type			FPX-I M6, M8, M10, M12
Effective anchorage depth	h_{ef}	[mm]	70
Permissible load²⁾ (F_{perm}) per anchor in cracked AAC-slabs			
$f_{AAC} \geq 3,3 \text{ N/mm}^2 / \rho_m \geq 0,50 \text{ kg/dm}^3$	F_{perm}	[kN]	0.62
$f_{AAC} \geq 4,4 \text{ N/mm}^2 / \rho_m \geq 0,55 \text{ kg/dm}^3$	F_{perm}	[kN]	0.83
Permissible load²⁾ (F_{perm}) per anchor in uncracked AAC-slabs			
$f_{AAC} \geq 3,3 \text{ N/mm}^2 / \rho_m \geq 0,50 \text{ kg/dm}^3$	F_{perm}	[kN]	0.83
$f_{AAC} \geq 4,4 \text{ N/mm}^2 / \rho_m \geq 0,55 \text{ kg/dm}^3$	F_{perm}	[kN]	1.24
Component dimensions			
Minimum member thickness with drill hole cleaning	h_{min}	[mm]	100
Minimum member thickness without drill hole cleaning	h_{min}	[mm]	120
Single anchor			
Minimum spacing	a	[mm]	600
Minimum edge distance	c_1	[mm]	125 / 150 ³⁾
Minimum edge distance orthogonal to c_1	c_2	[mm]	190
Anchor groups⁴⁾ with 2 or 4 anchors			
Actions			shear and oblique tension only axial tension
Minimum spacing between anchor group and 2 single anchors	s_{min}	[mm]	100 100
Minimum edge distance	c_1	[mm]	250 125 / 150 ³⁾
Minimum spacing	a	[mm]	750 600
Minimum edge distance orthogonal to c_1	c_2	[mm]	375 190

- ¹⁾ Permissible loads of a single anchor for all load directions. The required partial safety factors for material resistance as well as a partial safety factor for load actions of $\gamma_L = 1.4$ are considered.
- ²⁾ Grade of the screw resp. threaded rod ≥ 4.8 .
- ³⁾ In case of reinforced plates with a width ≤ 700 mm.
- ⁴⁾ $F_{perm,group} = 2 \times F_{perm,single}$ anchor valid in case of anchor groups with 2 or 4 anchors. Accurate data see ETA.

