## LOADS

### AAC anchor FPX-I

Highest permissible loads[1)5)] and required component dimensions in aerated concrete masonry.

| Type | | | FPX-I M6 , M8 , M10 , M12 | |
|---|---|---|---|---|
| **Permissible load[1)5)] per anchor $F_{perm}$** | | | | |
| Effective anchoring depth | hef | [mm] | 70 | |
| $f_{ck} \geq 1,6$ N /mm² / ρm ≥ 0,25 kg/dm³ | | [kN] | 0,32 | |
| $f_{ck} \geq 2,0$ N /mm² / ρm ≥ 0,35 kg/dm³ | | [kN] | 0,43 | |
| $f_{ck} \geq 4,0$ N /mm² / ρm ≥ 0,50 kg/dm³ | | [kN] | 0,89 | |
| $f_{ck} \geq 6,0$ N /mm² / ρm ≥ 0,65 kg/dm³ | | [kN] | 1,43 | |
| **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** | | | | |
| Min. spacing between single anchors | a | [mm] | 375 | |
| Min. edge distance | c1 | [mm] | 125 | |
| Min. distance to joints | $c_F$[4)] | [mm] | 75[2)] / 125 | |
| Min. edge distance orthogonal to $c_1$ | c2 | [mm] | 190 | |
| **Anchor groups[3)] with 2 or 4 Ancors** | | | | |
| Actions | | | shear + oblique tension | only axial tension |
| Min. spacing | smin | [mm] | 100 | 100 |
| Min. edge distance | c1 | [mm] | 250 | 125 |
| Min. spacing between single anchors | a | [mm] | 750 | 375 |
| Min. edge distance orthogonal to $c_1$ | c2 | [mm] | 375 | 190 |

For the design the complete approval ETA - 12/0456 has to be considered.

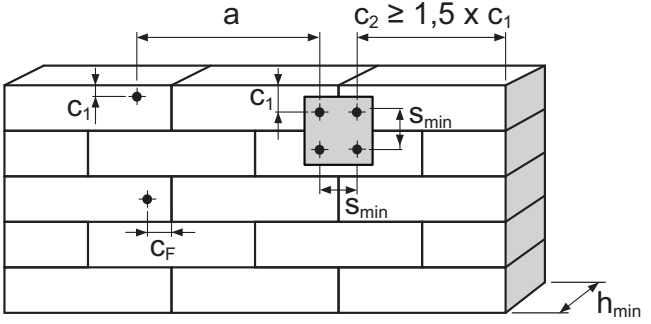
[1)] The required partial safety factors for material resistance as well as a partial safety factor for load actions of $\gamma_L = 1,4$ are considered.

[2)] $c_F$ for tensile load and/or shear load parallel to the joint which is not filled with mortar with width ≤ 2 mm.

[3)] $F_{perm,Group} = 2 \times F_{perm,single\ anchor}$ valid in case of anchor groups with 2 or 4 anchors.

[4)] In case of non visible joints $F_{perm}$ has to be divided in half.

[5)] Grade of the screw, resp. threaded rod ≥ 4.8.



## LOADS

### AAC anchor FPX-I

Highest permissible loads[1)4)] and required component dimensions in cracked and non-cracked aerated concrete wall and slab plates.

| Type | | | FPX-I M6 , M8 , M10 , M12 | |
|---|---|---|---|---|
| **Permissible load[1)4)] per anchor $F_{perm}$** | | | | |
| Effective anchoring depth | $h_{ef}$ | [mm] | 70 | |
| **Tensile area of the AAC plate** | | | | |
| $f_{ck} \geq 3{,}3$ N /mm² / $\rho_m \geq 0{,}50$ kg/dm³ | | [kN] | 0,62 | |
| $f_{ck} \geq 4{,}4$ N /mm² / $\rho_m \geq 0{,}55$ kg/dm³ | | [kN] | 0,83 | |
| **Compression area of the AAC plate** | | | | |
| $f_{ck} \geq 3{,}3$ N /mm² / $\rho_m \geq 0{,}50$ kg/dm³ | | [kN] | 0,83 | |
| $f_{ck} \geq 4{,}4$ N /mm² / $\rho_m \geq 0{,}55$ kg/dm³ | | [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** | | | | |
| Min. spacing between single anchors | a | [mm] | 600 | |
| Min. edge distance | c1 | [mm] | 125 / 300[3)] | |
| Min. edge distance orthogonal to $c_1$ | c2 | [mm] | 190 | |
| **Anchor groups[2)] with 2 or 4 anchors** | | | | |
| Actions | | | shear + oblique tension | only axial tension |
| Min. spacing | $s_{min}$ | [mm] | 100 | 100 |
| Min. edge distance | c1 | [mm] | 250 | 125 / 150[3)] |
| Min. spacing between single anchors | a | [mm] | 750 | 600 |
| Min. edge distance orthogonal to $c_1$ | c2 | [mm] | 375 | 190 |

For the design the complete approval ETA - 12/0456 has to be considered.

[1)] 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)] $F_{perm,Group} = 2 \times F_{perm,single\ anchor}$ valid in case of anchor groups with 2 or 4 anchors.

[3)] In case of reinforced plates with a width ≤ 700 mm.

[4)] Grade of the screw, resp. threaded rod ≥ 4.8.