

Frame fixing FUR 10

Permissible loads¹⁾²⁾³⁾ of a single anchor as part of a multiple fixing of non-structural systems.
For the design the complete current assessment ETA-13/0235 has to be considered.

| Type | | FUR 10 |
|---|---|-----------|
| Anchor diameter | | [mm] 10 |
| Anchorage depth | h_{nom} | [mm] 10 |
| Anchorage in concrete \geq C12/15 | | |
| Permissible tensile load N_{perm} | | [kN] 1.79 |
| Permissible shear load V_{perm} | zinc coated screws (gvz) | [kN] 5.37 |
| | stainless steel screw (R) | [kN] 4.98 |
| Minimum member thickness | h_{min} | [mm] 110 |
| Characteristic edge distance | $c_{cr,N}$ | [mm] 140 |
| Characteristic spacing | a resp. $s_{cr,N}$ | [mm] 90 |
| Minimum spacing | s_{min} | [mm] 70 |
| with an edge distance | $c \geq$ | [mm] 140 |
| Minimum edge distance | c_{min} | [mm] 70 |
| with a spacing | $s \geq$ | [mm] 210 |
| Anchorage in masonry | | |
| Permissible load ⁴⁾ F_{perm} in solid brick | \geq Mz 10, NF; $\rho \geq 1.8$ kg/dm ³ | [kN] 0.71 |
| | \geq Mz 12, NF; $\rho \geq 1.8$ kg/dm ³ | [kN] 0.86 |
| Permissible load ⁴⁾ F_{perm} in solid sand-lime brick | \geq KS 10, NF; $\rho \geq 1.8$ kg/dm ³ | [kN] 0.57 |
| | \geq KS 20, NF; $\rho \geq 1.8$ kg/dm ³ | [kN] 0.71 |
| Permissible load ⁴⁾ F_{perm} in lightweight concrete block | \geq Vbl 6; $\rho \geq 1.6$ kg/dm ³ | [kN] 0.57 |
| | \geq Vbl 8; $\rho \geq 1.6$ kg/dm ³ | [kN] 0.86 |
| Permissible load ⁴⁾⁵⁾ F_{perm} in vertically perforated brick, Form B (e.g. Poroton) | \geq HLz 12; $\rho \geq 1.4$ kg/dm ³ | [kN] 0.37 |
| | \geq HLz 20; $\rho \geq 1.4$ kg/dm ³ | [kN] 0.57 |
| Permissible load ⁴⁾ F_{perm} in perforated sand-lime brick | \geq KSL 12, 2 DF; $\rho \geq 1.6$ kg/dm ³ | [kN] 0.57 |
| | \geq KSL 16, 2 DF; $\rho \geq 1.6$ kg/dm ³ | [kN] 0.71 |
| Minimum member thickness | h_{min} | [mm] 110 |
| Minimum spacing (single anchor) | a_{min} | [mm] 250 |
| Minimum spacing (anchor group) | s_{min} | [mm] 100 |
| Minimum edge distance | c_{min} | [mm] 100 |

¹⁾ Valid for zinc coated screws (gvz) and for screws made of stainless steel (R). For exterior use of the zinc coated screws measures against incoming humidity according to assessment have to be taken.

²⁾ The partial safety factors for material resistance as regulated in the assessment as well as a partial safety factor for load actions $\gamma_L = 1.4$ are considered.
As a single anchor counts e.g. an anchor with a minimum spacing according to assessment.

³⁾ Valid for temperatures in the substrate up to +50 °C (resp. short term up to +80 °C).

⁴⁾ Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see assessment.

⁵⁾ Rotary drilling.