Loads

Permissible tensile loads[1)2)] for fixing external thermal insulation composite systems with rendering.
For the design the complete current assessment ETA-09/0171 of 18.10.2022 has to be considered.

| Base material | Brick raw density ρ [kg/dm^3] | Minimum compressive brick strength f_b [N/mm^2] | Effective anchorage depth[3)] h_{ef} [mm] | Minimum member thickness h_{min} [mm] | Concrete and masonry | | |
					Permissible tension load[1)2)] N_{perm} [kN]	Minimum spacing[4)] s_{min} [mm]	Minimum edge distance[4)] c_{min} [mm]
Concrete	-	≥ C12/15	≥ 35	100	0.16	100	100
	-	≤ C50/60	≥ 35	100	0.16	100	100
Sand-lime solid brick acc. to EN 771-1:2011+A1:2015, KS	≥ 1.8	12	≥ 35[5)]	100	0.20	100	100
Solid clay bricks acc. to EN 771-1:2011+A1:2015, Mz	≥ 2.0	12	≥ 35[5)]	100	0.20	100	100
Vertically perforated sand-lime brick acc. to EN 771-2:2011+A1:2015, KSL	≥ 1.4	12	≥ 35[5)]	100	0.13	100	100
Vertically perforated clay bricks acc. to EN 771-1:2011+A1:2015, HLz	≥ 1.0	12	≥ 35[5) 6)]	100	0.13	100	100
Lightweight concrete hollow blocks acc. to EN 771-3:2011+A1:2015, Hbl	≥ 1.2	10	≥ 35[5)]	100	0.16	100	100
Lightweight aggregate concrete acc. to EN 1520:2011, LAC	≥ 0.9	6	≥ 55[5)]	100	0.13	100	100
Autoclaved aerated concrete blocks acc. to EN 771-4:2011+A1:2015, AAC	≥ 0.5	4	≥ 55[6)]	100	0.10	100	100
	≥ 0.6	6	≥ 55[6)]	100	0.13	100	100

[1)] Plastic anchor for fixing of external thermal insulation composite systems with rendering acc. to ETA data. Only tension wind loads are permitted. The partial safety factors for material resistance as regulated in the assessment as well as a partial safety factor for load actions of $\gamma_L = 1.5$ are considered.
[2)] The given loads are valid for installation and use of fixations in dry base material for temperatures in the substrate up to +24 °C (resp. short term up to +40 °C).
[3)] Drilling method Hammer drilling. For details on installation data, see ETA.
[4)] Minimum possible axial spacing and edge distances acc. to ETA.
[5)] Restrictions concerning the manufacturer and the permissible hole patterns, see ETA.
[6)] Rotary drilling.