

Frame fixing SXRL⁴⁾

Highest permissible loads¹⁾ for a single anchor for multiple fixings of non-structural applications in masonry.

For the design the complete approval ETA-07/0121 has to be considered.

Type	compressive brick strength f_b [N/mm ²]	brick type, naming acc. DIN [-] [-]	min. anchorage depth h_{nom} [mm]	min. member thickness h_{min} [mm]	Solid brick masonry and perforated brick masonry		
					permissible load F_{perm} ³⁾⁵⁾ [kN]	min. spacing s_{min} ²⁾ [mm]	min. edge distance c_{min} ²⁾ [mm]
Solid brick Mz							
SXRL 10	≥ 20	Mz	70	110	1,14	100	100
SXRL 10	≥ 28	Mz	70	110	1,57	100	100
Solid sand-lime brick and solid block KS							
SXRL 10	≥ 12	KS	70	110	1,86	100	100
Vertically perforated brick HLz							
SXRL 10	≥ 20	HLz	70	110	0,34	100	100
Perforated sand-lime brick KSL							
SXRL 10	≥ 20	HLz	70	110	1,00	100	100
Hollow block of lightweight aggregate concrete Hbl							
SXRL10	≥ 6	Hbl	70	110	0,43 ¹⁾	100	100
SXRL10	≥ 10	Hbl	70	110	0,71 ¹⁾	100	100
Solid brick and solid block of lightweight aggregate concrete V							
SXRL 10	≥ 2	V	70	100	0,34	100	100
Aerated concrete blocks and reinforced panels AAC							
SXRL 10	≥ 2	AAC	90	175	0,32	200	100
SXRL 10	≥ 6	AAC	90	175	1,43	200	100

¹⁾ The required partial safety factors for material resistance as well as a partial safety factor for load actions $\gamma_L = 1,4$ are considered. As an single anchor counts e.g. an anchor with a minimum spacing s_{min} according table 11 resp. table 15 of the approval.

²⁾ Minimum possible axial spacings (anchor group) resp. edge distance while reducing the permissible load. The combination of the given min. spacing and min. edge distance is not possible. One of them has to be increased according approval.

³⁾ Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see approval.

⁴⁾ Valid for zinc coated screws and for screws made of stainless steel. For exterior use of the zinc coated screws measures against incoming humidity according approval have to be taken.

⁵⁾ The given values for hollow or perforated masonry apply for rotary drilling (without impact). The given loads are reference values which may change due to type of brick and manufacturer. If the embedment depth is higher than $h_{nom} = 70$ mm, job site tests have to be carried out.

⁶⁾ Valid for temperatures in the substrate up to +50°C (resp. short term up to 80°C). For long term temperatures up to 30°C higher permissible loads may be possible.

Thickness of outer web min. 35mm and hammer drilling.