

ResiFIX technical data in masonry

Fastening in masonry with Vynylester VYSF (Standard and Cool)

Permissible loads in [kN] and installation parameters - selection; for additional brick types and application conditions see ETA-approval.

Fastenings in solid and hollow masonry								
Suitable building materials		Density	Com- pressive strength	Anchor rods RESI AST, VA AST	Sleeve	Min. embedment dept	Use category dry / dry 24°C/40°C ¹⁾	
		ρ	f_b			h_{ef}	Tension load N_{per}	Shear V_{per}
		[kg/dm³]	[N/mm²]	Size	Size	[mm]	[kN]	[kN]
Solid sand-lime brick KSV		≥ 2,0	≥ 20	M8	without / SH 12-80	80 / 80	1,71 / 1,57	1,14 / 1,14
				M10	without / SH 16-85	90 / 85	1,71 / 1,43	1,29 / 1,14
				M12	without / SH 20-85	100 / 85	1,71 / 1,14	1,14 / 1,14
				M16	without / SH 20-85	100 / 85	1,43 / 1,14	1,14 / 1,14
Solid brick Mz		≥ 1,6	≥ 20	M8	without / SH 12-80	80 / 80	1,29 / 1,29	1,43 / 1,43
				M10	without / SH 16-85	90 / 85	1,57 / 1,43	1,43 / 1,43
				M12	without / SH 20-85	100 / 85	1,71 / 1,43	1,43 / 1,43
				M16	without / SH 20-85	100 / 85	1,71 / 1,43	2,29 / 1,43
Aerated concrete AAC6		≥ 0,6	≥ 6	M8	without	80	0,71	1,71
				M10	without	90	1,14	2,86
				M12	without	100	1,43	2,86
				M16	without	100	1,86	2,86
Hollow sand-lime brick KSL (KSL 3DF)		≥ 1,4	≥ 12	M8	SH 12-80	80	0,57	0,86
				M10	SH 16-85	85	0,57	1,29
				M10	SH 16-130	130	0,86	1,29
				M12	SH 20-85	85	1,71	1,29
Hollow brick HLz (HLz 16DF)		≥ 0,8	≥ 12	M16	SH 20-85	85	1,71	1,29
				M8	SH 12-80	80	1,00	1,14
				M10	SH 16-85	85	1,00	1,86
				M10	SH 16-130	130	1,43	1,86
				M12	SH 20-85	85	1,00	2,00
				M16	SH 20-85	85	1,00	2,00

N_{per} , V_{per} : Permissible loads incl. safety factors (γ_{M} and $\gamma_c = 1,4$), without influence of spacing and edge distance.

Drilling method: KSV and MZL hammer drilling; aerated concrete, KSL and HLz: rotary drilling

¹⁾ Max. long-term temperature / max. short-term temperature after installation.

Spacing and edge distances							
Suitable building materials	Anchor rod	Sleeve	Char. edge distance c_{cr} [mm]	Min. edge distance c_{min} [mm]	Char. spacing parallel to the bearing joint $s_{cr, }$ [mm]	Char. spacing perpendicular to the bearing joint $s_{cr,\perp}$ [mm]	Min. spacing s_{min} [mm]
Solid sand-lime brick KSV	M8	without	120	60	240	240	120
	M10	without	135	60	270	270	120
	M12	without	150	60	300	300	120
	M16	without	150	60	300	300	120
Solid brick Mz	M8	without	120	60	240	240	120
	M10	without	135	60	270	270	120
	M12	without	150	60	300	300	120
	M16	without	150	60	300	300	120
Aerated concrete AAC6	M8	without	120	75*	240	240	100
	M10	without	135	75*	270	270	100
	M12	without	150	75*	300	300	100
	M16	without	150	75*	300	300	100
Hollow sand-lime brick KSL (KSL 3DF)	M8	SH 12-80	120	60	240	120	120
	M10	SH 16-85	120	60	240	120	120
	M10	SH 16-130	120	60	240	120	120
	M12,M16	SH 20-85	120	60	240	120	120
Hollow brick HLz (HLz 16DF)	M8	SH 12-80	120	120	497	238	100
	M10	SH 16-85	120	120	497	238	100
	M10	SH 16-130	120	120	497	238	100
	M12,M16	SH 20-85	120	120	497	238	100

* valid for tension load; for shear load parallel to the free edge: 75 mm, for shear load perpendicular to the free edge $1,5 \times h_{ef}$

Group factor for anchor group in case of tension load, shear load parallel respectively perpendicular to the free edge: see ETA-approval

Bending moment				Anchor size			
Steel				M8	M10	M12	M16
Zinc plated 5.8	M_{zul}	[Nm]		10,8	21,2	37,7	94,8
Stainless steel A4	M_{zul}	[Nm]		11,9	23,8	42,1	106,7

