

## Window frame screws FFSZ and FFS

Recommended loads<sup>1)</sup> of a single screw.

Type		FFSZ			FFS		
Screw diameter	[mm]	7.5			7.5		
Anchorage depth $h_{ef} \geq$	[mm]	30	40	60	30	40	60
Recommended loads in concrete $\geq$ C20/25							
Tension load $N_{rec}$	[kN]	1.00	–	–	1.00	–	–
Shear load $V_{rec}$	[kN]	0.70	–	–	0.70	–	–
Minimum edge distance <sup>2)</sup> $c_{min}$	[mm]	30	–	–	30	–	–
Recommended loads in masonry							
Tension load $N_{rec}$ in solid brick $\geq$ Mz 12	[kN]	–	0.40 <sup>3)</sup>	0.80	–	0.40 <sup>3)</sup>	0.80
Shear load $V_{rec}$ in solid brick $\geq$ Mz 12	[kN]	–	0.30 <sup>3)</sup>	0.70	–	0.30 <sup>3)</sup>	0.70
Tension load $N_{rec}$ in solid sand-lime brick $\geq$ KS 12	[kN]	–	1.00	–	–	1.00	–
Shear load $V_{rec}$ in solid sand-lime brick $\geq$ KS 12	[kN]	–	0.60	–	–	0.60	–
Tension load $N_{rec}$ in vertically perforated brick $\geq$ Hlz 12	[kN]	–	–	0.25 <sup>3)</sup>	–	–	0.25 <sup>3)</sup>
Shear load $V_{rec}$ in vertically perforated brick $\geq$ Hlz 12	[kN]	–	–	0.40 <sup>3)</sup>	–	–	0.40 <sup>3)</sup>
Minimum edge distance <sup>2)</sup> $c_{min}$	[mm]	–	40	40	–	40	40
Recommended loads in aerated concrete							
Load <sup>4)</sup> $F_{rec}$ in aerated concrete $\geq$ AAC 2	[kN]	–	–	0.10 <sup>5)</sup>	–	–	0.10 <sup>5)</sup>
$\geq$ AAC 4	[kN]	–	–	0.25 <sup>5)</sup>	–	–	0.25 <sup>5)</sup>
Minimum edge distance <sup>2)</sup> $c_{min}$	[mm]	–	–	40	–	–	40

<sup>1)</sup> Required safety factors are considered.

As a single screw counts e.g. a screw with a spacing  $s \geq 3 \times h_{ef}$  and an edge distance  $c \geq 1.5 \times h_{ef}$ .

<sup>2)</sup> Minimal possible edge distance while reducing the recommended loads.

<sup>3)</sup> Rotary drilling.

<sup>4)</sup> Valid for tensile load, shear load and oblique load under any angle.

<sup>5)</sup> Without pre-drilling.