

SCREWBOLT TSM-IM



APPLICATION

Suitable for quick and safe fixation of e.g. channels and pipes to concrete and masonry ceilings or walls. To be applied in dry rooms not exposed to high corrosion resistance requirements.

- Easy installation via self-cutting action of screwbolt threads into concrete
- Small edge and axial distances to adjacent fixings, due to low expansion pressure when installed
- Also fixes into pressure-resistant natural stones and different solid bricks (not part of ETA approval / guideline)
- Flexible use for high or standard load performances due to 2 anchoring depths
- For single fixings it is possible to additionally seal the drill hole with a special injection resin against water ingress, prior to the fixing being installed and before the injection resin sets.

TECHNICAL DATA

Single fixing:

Extract from application conditions of ETA-16/0655

Admissible loads not affected by centre and edge distances.

Total safety factor respected according ETAG 001 (YM YF).

PROSYSTEM ITALIA SRL

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Reg.Imp. Ve 03470750278
Cap.soc. € 90.000,00
REA Padova n° 311219

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	Anchoring depth [55mm]	Anchoring depth [40mm]
Drive	SW13	SW13
Nominal diameter of drill d0 [mm]	6	6
Depth of bore hole h1 [mm]	60	45
Perm. tensile load cracked concrete		
C20/25 [kN]	1.9	1.0
C25/30 [kN]	2.1	1.0
C30/37 [kN]	2.3	1.2
C40/50 [kN]	2.7	1.3
C50/60 [kN]	3.0	1.5
Perm. tensile load non-cracked concrete		
C20/25 [kN]	4.3	1.9
C25/30 [kN]	4.7	2.1
C30/37 [kN]	5.2	2.3
C40/50 [kN]	6.1	2.7
C50/60 [kN]	6.6	3.0
Min. thickness of component hmin [mm]	100	100
Charact. centre distance scr,N	132	93
Charact. edge distance ccr,N	66	46.5
Min. centre distance smin [mm]	40	40
Min. edge distance cmin [mm]	40	40
Clearance hole in component \leq [mm]	8	8
Perm. bending moment Mzul [Nm]	5.7	5.7
Recommended max. torque Tinst [Nm]	10	10

Anchoring depth

[55mm]

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Anchoring depth

[40mm]

Perm. loads under stress of fire in cracked/non-cracked concrete C20/25 to C50/60

	Anchoring depth 55 mm	Anchoring depth 40 mm
Perm. tensile load R30 perm. F [kN]	0.9	0.5
Perm. tensile load R60 perm. F [kN]	0.8	0.5
Perm. tensile load R90 perm. F [kN]	0.6	0.5
Perm. tensile load R120 perm. F [kN]	0.4	0.4
Charact. centre distance $c_{scr,fi}$	176	124
Charact. edge distance $c_{cr,fi}$	88	62

Multiple fixing:

Extract from application conditions of ETA-16/0656

For multiple mounting solutions of non-load-bearing systems acc. ETAG 001, part 6.

Safety factor acc. ETAG 001 is included (Y M Y F).

The perm. loads per fixing point for the respective countries are regulated in ETAG 001, part 6.

	Anchoring depth [55mm]	Anchoring depth [35mm]
Drive	SW13	SW13
Nominal diameter of drill d_0 [mm]	6	6
Depth of bore hole h_1 [mm]	60	40
Perm. tensile load in cracked concrete		
C20/25 [kN]	3.6	0.6
C25/30 [kN]	3.9	0.7
C30/37 [kN]	4.3	0.7

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C40/50 [kN]	5.1	0.8
C50/60 [kN]	5.5	0.9
Perm. tensile load in non-cracked concrete		
C20/25 [kN]	3.6	0.6
C25/30 [kN]	3.9	0.7
C30/37 [kN]	4.3	0.7
C40/50 [kN]	5.1	0.8
C50/60 [kN]	5.5	0.9
Min. thickness of component hmin [mm]	100	80
Charact. centre distance scr,N	132	81
Charact. edge distance ccr,N	66	40.5
Min. centre distance smin [mm]	40	40
Min. edge distance cmin [mm]	40	40
Clearance hole in component ≤ [mm]	8	8
Recommended max. torque Tinst [Nm]	10	10

Anchoring depth

Anchoring depth

Perm. tensile load in cracked concrete

Perm. tensile load in non-cracked concrete

Perm. loads under stress of fire in cracked/non-cracked concrete C20/25 to C50/60

	Anchoring depth 55 mm	Anchoring depth 35 mm
Perm. tensile load R30 perm F [kN]	0.9	0.38
Perm. tensile load R60 perm. F [kN]	0.8	0.38
Perm. tensile load R90 perm. F [kN]	0.6	0.38
Perm. tensile load R120 F [kN]	0.4	0.30

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Charact. centre distance scr,fi	176	108
Charact. edge distance ccr,fi	88	54

Prestressed concrete hollow plate ceilings C30/37 to C50/60

Anchoring depth h _{nom} [mm]			≥ 35
Nominal diameter of drill d ₀ [mm]			6
Depth of bore hole h ₁ [mm]			40
Recommended max. torque T _{inst} [Nm]			10
Level size d _b [mm]	≥ 25	≥ 30	≥ 35
Perm. tensile load [kN]	0.4	0.8	1.2
Min. centre distance s _{min} [mm]	100	100	100
Min. edge distance c _{min} [mm]	100	100	100

For calculation the whole approval is to be respected.

Material:

Steel, electro-galvanised verzinkt

APPROVALS

Approvals ETA-16/0655 and ETA-16/0656.

Codice	Nome	Peso	Numero di pezzi
115028	6×35 K*	0.04	50
115721		0.04	50

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