Insulation anchor TIS

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TOGE

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Institut für Massivbau
Technische Universität
Darmstadt

Material

- screw: galvanised steel
- cap: polyethylene (3 colors)

Base material

- approved for concrete C 20/25 bis C 50/60
- cracked and non-cracked concrete

Product features

- approved for multiple fastening of insulation panels
- high load-bearing capacity and non-cracked concrete
- small drill hole
- quick and safe installation

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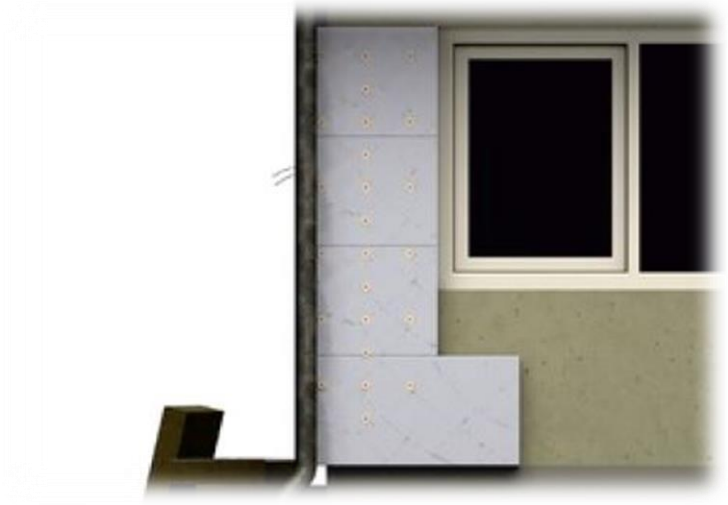
Technical characteristics without fire exposure			
			Toge insulation anchor TIS
drill bit diameter	d_0	[mm]	6
depth of drill hole	h_1 ≥	[mm]	30
effective anchorage depth	h_{ef} ≥	[mm]	25
minimum thickness of member	h_{min}	[mm]	80
edge distance	**c**	[mm]	60
spacing	**s**	[mm]	120
permissible load in cracked and non-cracked concrete C20/25 - C50/60[1)2)]	N_{zul}	[kN]	0,22

1) The partial safety factor for material resistance from the approval γ_M = 1.5 as well a partial safety factor for load actions γ_F = 1.4 were considered for determining the load



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Technical characteristics under fire exposure			
			Toge Isolierschraube TIS
fire resistance class			
R 30	**permissible load $F_{fi,per,30}$** [1]	[kN]	0,34
R 60	**permissible load $F_{fi,per,60}$** [1]	kN]	0,31
R 90	**permissible load $F_{fi,per,90}$** [1]	[kN]	0,21
R 120	**permissible load $F_{fi,per,120}$** [1]	[kN]	0,17
R 180	**permissible load $F_{fi,per,180}$** [1]	[kN]	0,12
R 30 - R 120	**spacing** s_{fi}	[mm]	120
	edge distance c_{fi}	[mm]	60

1) The partial safety factor for material resistance from the approval y_M = 1.0 as well a partial safety factor for load actions y_F = 1.0 were considered for determining the load.

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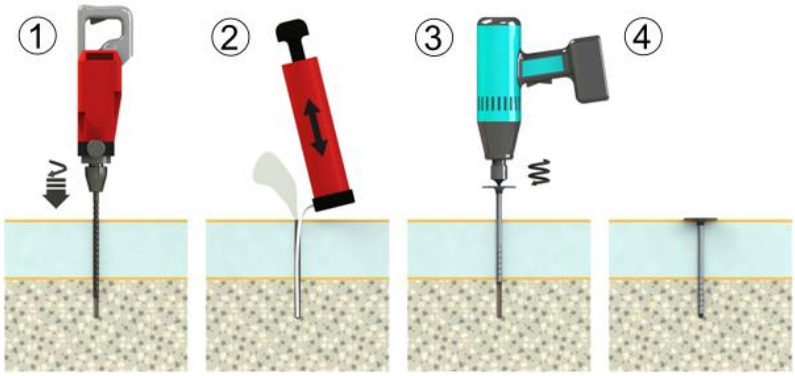
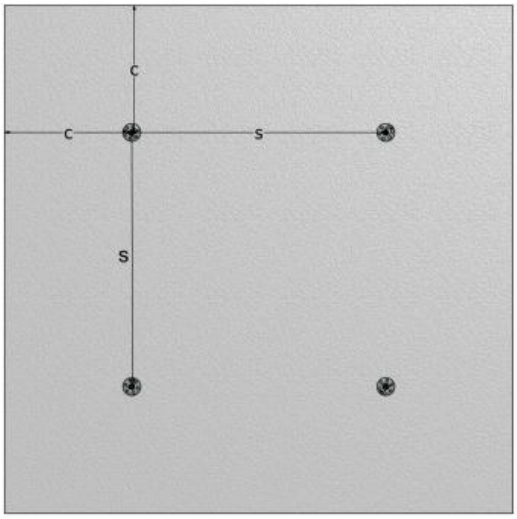
Installation instructions



1) set drill hole
2) clean out drill hole from the base
3) knock insulation fastener through the insulation panel with a hammer
4) anchor disc must fully contact the insulation panel



Minimum 4 anchors per square meter for insulation panel. The dimension between axes and edge distance is valid without fire exposure.