

TRUTEK TCM A ARCTIC WINTER INJECTION RESIN

Usage:

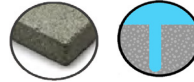
- Installation of threaded studs
- Approved for non crack concrete
- Can be used in dry wet and flooded holes
- Suitable for use in brickwork
- Can be used with perforated sleeves in hollow substrate
- Class A1 reaction to fire

Advantages:

- Styrene free for interior use and confined spaces
- Available in 380ml cartridge
- Suitable for concrete from c20/25 to c50/60
- Range of embedment depths

For use with:

- ∞ Non Cracked Concrete
- ∞ Flooded Holes


Resin setting times

Substrate temperature	°C	+30	+20	+10	0	-10	-20
Gel time	min.	2	3	5	15	45	240
Cure time in dry concrete	hour.	0,33	0,5	1	2,5	16	24
Cure time in wet concrete	hour.	0,66	1	2	6	32	48

 The temperature of the resin container must be \geq °C

Concrete Ranges:	C20/25 to C0/60 according to EN 206:2013+A1:2016
Certification:	European Technical Assessment ETA 20/0148 Issued 02/07/2020

Installation Data

Threaded Stud diameter d [mm]		M8	M10	M12	M16	M20	M24
Nominal drill hole diameter	do	7,8	11,0	14,9	19,3	30,5	41,4
Diameter of clearance hole in fixture	df	7,2	12,0	16,8	31,2	48,8	70,4
Diameter of steel brush	db	10	12	14	18	24	28
Minimum Effective Anchorage Depth	h _{ef,min}	80	90	110	125	170	210
Maximum Effective Anchorage Depth	h _{ef,max}	110	120	140	165	220	270
Standard Effective Anchorage Depth	h _{ef,std}	40	50	60	80	100	120
Minimum Concrete Thickness	h _{min}	40	50	60	80	100	120
Spacing - Tension (Standard Embedment) Dry & Wet holes	S _{std}	10	20	30	60	90	140
Edge Distance - Tension (Standard Embedment) Dry & Wet holes	c _{N,t,d}	3,7	5,1	7,4	11,1	38,9	56,8
Spacing - Tension (Standard Embedment) Flooded holes	S _{std}	102,7	74,5	51,3	34,2	9,7	6,7
Edge Distance - Tension (Standard Embedment) Flooded holes	c _{N,std}	3,7	5,1	7,4	11,1	38,9	56,8
Edge Distance - Shear (Standard Embedment) 5.8 Stud (Dry & Wet holes)	c _{V,std}	40	50	60	80	100	120
Edge Distance - Shear (Standard Embedment) 8.8 Stud	c _{V,std}	40	50	60	80	100	120
Edge Distance - Shear (Standard Embedment) A4-70 Studs	c _{V,std}	10	20	30	60	90	140
Minimum Spacing	s _{min}	3,7	5,1	7,4	11,1	38,9	56,8
Minimum Edge Distance	c _{min}	3,7	5,1	7,4	11,1	38,9	56,8
Installation Torque	T _{inst}	102,7	74,5	51,3	34,2	9,7	

Standard Embedment Depth (Non-Cracked Concrete, Hammer Drilling and Compressed Air Drilling)			(DRY AND WET HOLES)					
			Threaded Stud Diameter d [mm]					
			M8	M10	M12	M16	M20	M24
Characteristics Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	NRk	[kN]	14.0	19.8	26.9	40.8	64.0	87.0
5.8		[kN]	9	15	21	39	61	88
Shear 8.8	VRk	[kN]	15	23	34	60.3	106.8	142.5
A4-70		[kN]	13	20	30	55	86	124
Design Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	NRd	[kN]	7.8	11	14.9	19.4	30.5	41.4
5.8		[kN]	8.2	12	16.8	31.2	48.8	70.4
Shear 8.8	VRd	[kN]	12	18.4	27.2	50.4	71.2	95
A4-70		[kN]	8.3	12.8	19.2	35.2	55.1	79.5
Recommended Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	Nrec	[kN]	5.6	7.9	10.6	13.9	21.8	29.6
5.8		[kN]	5.1	8.6	12	22.3	34.9	50.3
Shear 8.8	Vrec	[kN]	8.6	13.1	19.4	36	50.9	67.9
A4-70		[kN]	5.9	9.1	13.7	25.1	39.4	56.8

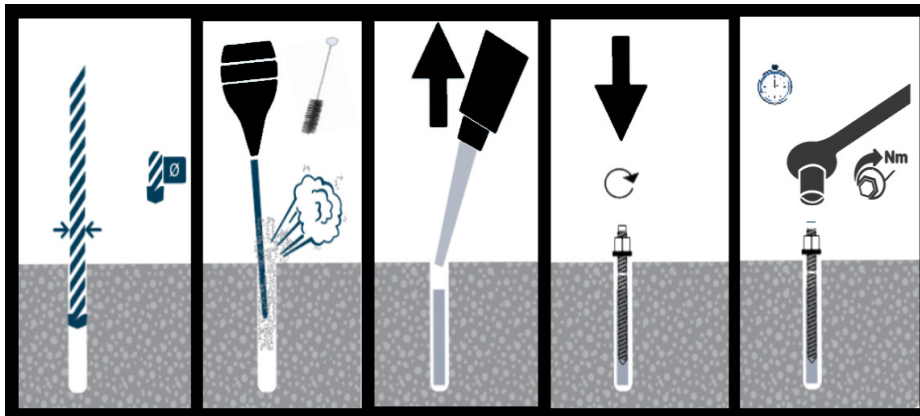
Standard Embedment Depth (Non-Cracked Concrete, Hammer Drilling and Compressed Air Drilling)			(FLOODED HOLES)					
			Threaded Stud Diameter d [mm]					
			M8	M10	M12	M16	M20	M24
Characteristics Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	NRk	[kN]	14,0	19,8	26,9	37.7	53.4	71.2
5.8		[kN]	9	15	21	39	61	88
Shear 8.8	VRk	[kN]	15	23	34	60.3	106.8	142.5
A4-70		[kN]	13	20	30	55	86	124
Design Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	NRd	[kN]	7.8	11	12.8	17.9	25.4	33.9
5.8		[kN]	8.2	12	16.8	31.2	48.8	70.4
Shear 8.8	VRd	[kN]	12	18.4	27.2	50.4	71.2	95
A4-70		[kN]	8.3	12.8	19.2	35.2	55.1	79.5
Recommended Resistance								
Tensile (5.8, 8.8, A4-70 Studs)	Nrec	[kN]	5.6	7.9	9.1	12.8	18.1	24.2
5.8		[kN]	5.1	8.6	12	22.3	34.9	50.3
Shear 8.8	Vrec	[kN]	8.6	13.1	19.4	36	50.9	67.9
A4-70		[kN]	5.9	9.1	13.7	25.1	39.4	56.8

Increasing Factors							
Threaded Stud Diameter d [mm]							
	M8	M10	M12	M16	M20	M24	
Ψ _c C30/37	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Ψ _c C40/50	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Ψ _c C50/60	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Steel Factors			Threaded Stud Diameter d [mm]						
Grade 5.8			M8	M10	M12	M16	M20	M24	
Characteristic Tensile Resistance	NRk,s	[kN]	18	29	42	78	122	176	
Partial Safety Factor	γ_{MsN}	[-]	1.5	1.5	1.5	1.5	1.5	1.5	
Characteristic Shear Resistance	VRk,s	[kN]	9	15	21	39	61	88	
Partial Safety Factor	γ_{MsV}	[-]	1.25	1.25	1.25	1.25	1.25	1.25	
Grade 8.8			M8	M10	M12	M16	M20	M24	
Characteristic Tensile Resistance	NRk,s	[kN]	29	46	67	125	196	282	
Partial Safety Factor	γ_{MsN}	[-]	1.5	1.5	1.5	1.5	1.5	1.5	
Characteristic Shear Resistance	VRk,s	[kN]	15	23	34	63	98	141	
Partial Safety Factor	γ_{MsV}	[-]	1.25	1.25	1.25	1.25	1.25	1.25	
Stainless Steel A4-70			M8	M10	M12	M16	M20	M24	
Characteristic Tensile Resistance	NRk,s	[kN]	26	41	59	110	171	247	
Partial Safety Factor	γ_{MsN}	[-]	1.87	1.87	1.87	1.87	1.87	1.87	
Characteristic Shear Resistance	VRk,s	[kN]	13	20	30	55	86	124	
Partial Safety Factor	γ_{MsV}	[-]	1.56	1.56	1.56	1.56	1.56	1.56	

Installation

- 1: Drill correct diameter hole to the required depth.
- 2: Clean the hole by blowing twice from the bottom of the hole and brushing with correct diameter brush twice. Repeat twice and finish by blowing two times
- 3: Fill the hole approximately two thirds full starting from the bottom of the hole. Slowly withdraw the nozzle as filling.
- 4: Insert the threaded rod with a slight turning action to ensure even distribution of the resin. Ensure the stud reaches the bottom of the hole.:
- 5: Leave the resin to cure for the appropriate time. Attach the fixture with the nut and washer. Tighten to the recommended torque with a calibrated torque wrench.



Accessories:

