

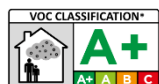
TRUTEK TCM A ARCTIC WINTER INJECTION RESIN

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



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 $\geq -2^{\circ}\text{C}$

Concrete Ranges:	C20/25 to C50/60 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,std}	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
Recomended 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

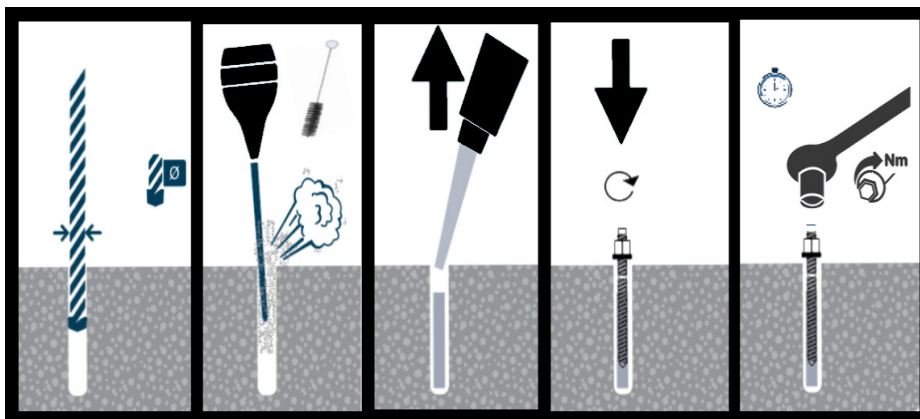
Standard Embedment Depth (Non-Cracked Concrete, Hammer Drilling and Compressed Air Drilling			(FLOODED HOLES)						
			Threaded Stud Diameter d [mm]	M8	M10	M12	M16	M20	M24
Characteristics Resistance									
Tensile (5.8, 8.8, A4-70 Studs)	NRk	[kN]		14,0	19,8	26,9	37.7	53.4	71.2
5.8		[kN]		9	15	21	39	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
Ψc C30/37				1.0	1.0	1.0	1.0	1.0	1.0
Ψc C40/50				1.0	1.0	1.0	1.0	1.0	1.0
Ψc C50/60				1.0	1.0	1.0	1.0	1.0	1.0

Steel Factors									
Grade 5.8			Threaded Stud Diameter d [mm]	M8	M10	M12	M16	M20	M24
Characteristic Tensile Resistance	NR _{k,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	VR _{k,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			Threaded Stud Diameter d [mm]	M8	M10	M12	M16	M20	M24
Characteristic Tensile Resistance	NR _{k,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	VR _{k,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			Threaded Stud Diameter d [mm]	M8	M10	M12	M16	M20	M24
Characteristic Tensile Resistance	NR _{k,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	VR _{k,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:

