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

VOC CLASSIFICATION A+ (A+ A B C)

ETA-20/0148

DesignFiX®

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 ≥-°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	hef,max	110	120	140	165	220	270
Standard Effective Anchorage Depth	hef,std	40	50	60	80	100	120
Minimum Concrete Thickness	hmin	40	50	60	80	100	120
Spacing - Tension (Standard Embedment) Dry & Wet holes	Sstd	10	20	30	60	90	140
Edge Distance - Tension (Standard Embedment) Dry & Wet holes	cN,std	3,7	5,1	7,4	11,1	38,9	56,8
Spacing - Tension (Standard Embedment) Flooded holes	Sstd	102,7	74,5	51,3	34,2	9,7	6,7
Edge Distance - Tension (Standard Embedment) Flooded holes	cN,std	3,7	5,1	7,4	11,1	38,9	56,8
Edge Distance - Shear (Standard Embedment) 5.8 Stud (Dry & Wet holes)	cV,std	40	50	60	80	100	120
Edge Distance - Shear (Standard Embedment) 8.8 Stud	cV,std	40	50	60	80	100	120
Edge Distance - Shear (Standard Embedment) A4-70 Studs	cV,std	10	20	30	60	90	140
Minimum Spacing	smin	3,7	5,1	7,4	11,1	38,9	56,8
Minimum Edge Distance	cmin	3,7	5,1	7,4	11,1	38,9	56,8
Installation Torque	Tinst	102,7	74,5	51,3	34,2	9,7	6,7

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
Recomended 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

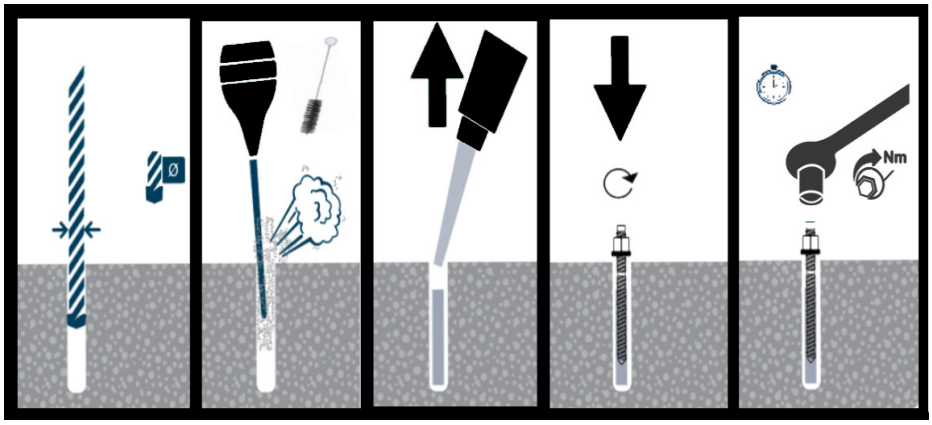
Increasing Factors								
	Threaded Stud Diameter d [mm]	M8	M10	M12	M16	M20	M24
Ψc C30/37		1.0	1.0	1.0	1.0	1.0	1.0
Ψc C40/50		1.0	1.0	1.0	1.0	1.0	1.0
Ψc C50/60		1.0	1.0	1.0	1.0	1.0	1.0

CHEMICAL ANCHORS

TRUTEK

Steel Factors									
Grade 5.8			**Threaded Stud Diameter d [mm]**	**M8**	**M10**	**M12**	**M16**	**M20**	**M24**
Characteristic Tensile Resistence	NRk,s	[kN]		18	29	42	78	122	176
Partial Safety Factor	γMsN	[-]		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	γMsV	[-]		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 Resistence	NRk,s	[kN]		29	46	67	125	196	282
Partial Safety Factor	γMsN	[-]		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	γMsV	[-]		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 Resistence	NRk,s	[kN]		26	41	59	110	171	247
Partial Safety Factor	γMsN	[-]		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	γMsV	[-]		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:

Cartridge Nozzle
& Extension
TCN01 & TCN03

TCM420MTP

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Issue No: 17022