TRUTEK TCM FX - TE 500 INJECTION RESIN
Pure Epoxy

Usage:

- Installation of threaded studs
- Approved for non-cracked concrete
- Can be used in dry & wet
- Class A1 reaction to fire
- High loading capacity

ETA-APPROVED

VOC CLASSIFICATION A+

Advantages:

- Long cure time to allow deep embedment installation
- Suitable for concrete from C20/25 to C50/60
- Range of Embedment Depths

Concrete Ranges:	C20/25 to C0/60 according to EN 206:2013+A1:2016
Certification:	European Technical Assessment ETA 23/0773 issued 02/11/23

Curing time in dry concrete

Concrete Temperature	Minimum Curing time	Maximum Curing time
+10°C	600 min	48 hrs
+15°C	150 min	30hrs
+20°C	60 min	24 hrs
+25°C	30 min	15 hrs
+30°C	15 min	10 hrs
+40°C	8 min	6 hrs

Curing time in wet concrete

Concrete Temperature	Minimum Curing time	Maximum Curing time
+10°C	720 min	72 hrs
+15°C	180 min	45 hrs
+20°C	80 min	36 hrs
+25°C	40 min	20 hrs
+30°C	20 min	12 hrs
+40°C	11 min	8 hrs

The Load Data on the following pages assumes the following:

- Concrete C20/25 ($f_{ck,cube}$ = 25 N/mm^2)
- No Edge and Spacing reductions
- Minimum base material thickness
- Correct installation
- Standard cleaning

Installation Data

Threaded Stud Diameter			M8	M10	M12	M16	M20	M24	M27	M30
Nominal drill hole diameter	d_o	[mm]	10	12	14	18	22	24	30	35
Diameter of steel brush	d_b	[mm]	11	14	16	20	25	30	40	40
Minimum Effective Anchorage Depth	$h_{,ef,min}$	[mm]	60	60	70	80	90	96	108	120
Maximum Effective Anchorage Depth	$h_{ef,max}$	[mm]	160	200	240	320	400	480	540	600
Standard Effective Anchorage Depth	$h_{ef,std}$	[mm]	80	90	110	125	170	210	250	280
Fixture Clearance Hole	d_f	[mm]	9	12	14	18	22	26	30	33
Minimum Concrete Thickness	h_{min}	[mm]	h_{ef} + 30mm ≥ 100mm			h_{ef} + 2d_o				
Spacing - Tension (Standard Embedment) 5.8 studs	S_{std}	[mm]	195	265	305	375	465	630	725	840
Spacing - Tension (Standard Embedment) A4 studs	S_{std}	[mm]	210	265	305	375	465	630	725	840
Edge Distance - Tension (Standard Embedment) 5.8 Studs	c_{Nstd}	[mm]	105	135	155	190	235	315	370	420
Edge Distance - Tension (Standard Embedment) A4 Studs	c_{Nstd}	[mm]	105	135	155	190	235	315	370	420
Edge Distance - Shear (Standard Embedment) 5.8 Studs	$c_{V,std}$	[mm]	75	105	125	190	250	345	450	550
Edge Distance - Shear (Standard Embedment) A4 Studs	$c_{V,std}$	[mm]	80	110	140	210	275	400	520	635
Minimum Spacing	s_{min}	[mm]	40	50	60	75	90	115	120	140
Minimum Edge Distance	c_{min}	[mm]	40	45	45	50	55	60	75	80
Maximum Torque Moment	T_{inst}	[Nm]	10	20	40	80	150	200	270	300

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CHEMICAL ANCHORS

TRUTEK

Load Data

Standard Embedment Depth **Grade 5.8 Studs** ***(C20/25 Non-Cracked concrete, Hammer Drilling and Compressed Air Drilling)***

Threaded Stud Diameter			M8	M10	M12	M16	M20	M24	M27	M30
Characteristics Resistance										
Tensile	N_{Rk}	[kN]	18.0	36.7	49.7	65.9	106.8	149.7	190.8	230.5
Shear	V_{Rk}	[kN]	9.0	15.0	21.0	39.0	61.0	88.0	115.0	140.0
Design Resistance										
Tensile	N_{Rd}	[kN]	12.0	17.5	23.7	31.4	50.8	71.3	90.8	109.7
Shear	V_{Rd}	[kN]	7.2	12.0	16.8	31.2	48.8	70.4	92.0	112.0
Recommended Resistance										
Tensile	N_{rec}	[kN]	8.6	12.5	16.9	22.4	36.3	50.9	64.9	78.4
Shear	V_{rec}	[kN]	5.1	8.6	12.0	22.3	34.9	50.3	65.7	80.0

Standard Embedment Depth

Characteristics Resistance **A4/70 Stainless Steel** ***(C20/25 Non-Cracked concrete, Hammer Drilling and Compressed Air Drilling)***

Tensile	N_{Rk}	[kN]	26.1	36.7	49.7	65.9	106.8	149.7	190.8	230.5
Shear	V_{Rk}	[kN]	13.0	20.0	30.0	55.0	86.0	124.0	161.0	196.0
Design Resistance										
Tensile	N_{Rd}	[kN]	12.4	17.5	23.7	31.4	50.8	71.3	90.8	109.7
Shear	V_{Rd}	[kN]	8.3	12.8	19.2	35.2	55.1	79.5	103.2	125.6
Recommended Resistance										
Tensile	N_{rec}	[kN]	8.9	12.5	16.9	22.4	36.3	50.9	64.9	78.4
Shear	V_{rec}	[kN]	5.9	9.1	13.7	25.1	39.4	56.8	73.7	89.7

Recommended Resistance Includes Partial Safety Factor γ = 1.4 in the absence of national regulations and type of loading Data is for Static and Quasi Static Loads for a single anchor

Increasing Factor

Threaded Stud Diameter			M8	M10	M12	M16	M20	M24	M27	M30
Ψc C50/60		[-]	1.1							

When using increasing factors care must be taken not to exceed steel limits

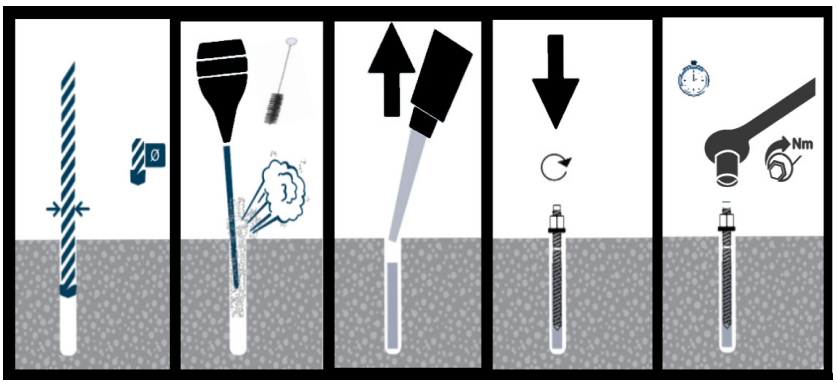
Steel Limits

Grade 5.8

Threaded Stud Diameter			M8	M10	M12	M16	M20	M24	M27	M30
Characteristic Tensile Resistance	$N_{Rk,s}$	[kN]	18.0	29.0	42.0	79.0	123.0	177.0	230.0	281.0
Partial safety factor	γ_{MsN}	[-]	1.5							
Characteristic Shear Resistance	$V_{Rk,s}$	[kN]	9.0	15.0	21.0	39.0	61.0	88.0	115.0	140.0
Partial Safety Factor	γ_{MsV}	[-]	1.25							

Stainless Steel A4-70

Threaded Stud Diameter			M8	M10	M12	M16	M20	M24	M27	M30
Characteristic Tensile Resistance	$N_{Rk,s}$	[kN]	26.0	41.0	59.0	110.0	172.0	247.0	321.0	393.0
Partial safety factor	γ_{MsN}	[-]	1.87							
Characteristic Shear Resistance	$V_{Rk,s}$	[kN]	13.0	20.0	30.0	55.0	86.0	124.0	161.0	196.0
Partial Safety Factor	γ_{MsV}	[-]	1.56							



Accessories:

Cartridge Nozzle
& Extension
TCN01 & TCN03

TCM585MT

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