Trutek Fasteners Polska Sp. z o.o.
Al. Krakowska 38, Janki
05-090 Raszyn
NIP: PL 5342256188 REGON: 015722173

National Declaration of Performance

No: TT/02/20180820/020-UWB-2672/W

Revision No:	2
Revision carried out by:	Tomasz Golon
Revision date:	27.02.2020

1.	**Unique identifiaction code of product-type:**	
	Steel expansion anchors TT-THROUGHBOLT	
2.	**Construction product type designation:**	
	TT – carbon steel expansion anchor zinc plated	
	TT-G – carbon steel expansion anchor hot dip galvanised	
	TT-SS – stainless steel expansion anchor A4-70	
	TWH - carbon steel expansion anchor zinc plated non-threaded stud with round hole ended	
3.	**Indended use/es:**	
	TT-THROUGHBOLT expansion fasteners are used for fastening construction elements with static loading in ordinary or reinforced concrete, non-cracked or cracked, of the C20/25 to C50/60 class according to the PN-EN 206:2014 standard.	
4.	**Manufacturer:**	
	Name:	Trutek Fasteners Limited
	Address:	Trutek House, Unit B, Vector 31, Waleswood Way, Wales Bar Sheffield S26 5NU, South Yorkshire, Wielka Brytania
5.	**Authorised representative company**	
	Name:	Trutek Fasteners Polska Sp. z o.o.
	Address:	Al. Krakowska 38, Janki 05-090 Raszyn, Polska
6.	**National system(-s) used for verification of constancy of performance:**	
	System:	1
7.	**National technical specification:**	
	Technical Approval:	No AT-15-7728/2016
	Issued by:	ITB - Building Research Institute in Warsaw
	Address:	ul. Filtrowa 1; 00-611 Warszawa, Polska
8.	**Accredited certification body:**	
	Name:	Cerification Department of ITB - Building Research Institute in Warsaw
	Address:	ul. Filtrowa 1; 00-611 Warszawa, Polska
	Accreditation No:	AC 020
	Certificate of constancy of performance No:	020-UWB-2672/W
9.	**Declared performance/es:**	
	Purpose, range and conditions of use	
	Substrates:	Ordinary or reinforced concrete, non-cracked or cracked, of the C20/25 to C50/60 class according to the PN-EN 206:2014 standard.
	Anchors:	Expansion anchors made from carbon steel class min. 4.8 zinc plated min. 5µm or hot dip galvanized min. 43µm or stainless steel grade 1.4401(A4-70), 1.4404 (A4-70) or 1.4571 (A4-70) shall be used according to requirements of PN-EN 10088-1:2014 (Section 3.1).
	Loads:	Static loads
	Anchors dimensions	**Table No in Technical Approval**
	Dimensions of expansion anchors TT, TT-G, TT-SS and TWH	Table No 1
	Protective layer thickness	**Table No in Technical Approval**
	Anchor carbon steel class min. 4.8 zinc plated	min 5 µm,

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	Anchor carbon steel class min. 4.8 hot dip galvanised		min 43 µm,
	Characteristic tensile load capacities		**Table No in Technical Approval**
	in non-cracked concrete TT, TT-G, TT-SS, TWH [kN]		Table No 7
	in cracked concrete TT, TT-G, TT-SS, TWH [kN]		Table No 8
	Calculated load capacities of fastenings for any direction of load under the influence of fire		**Table No in Technical Approval**
	Calculated load capacities of expansion fasteners TT, TT-G, TT-SS and TWH in ordinary non-cracked concrete R30/60/90/120		Table No 4
	Calculated load capacities of expansion fasteners TT, TT-G, TT-SS and TWH in ordinary cracked concrete R30/60/90/120		Table No 5
	Comments		
	Design	It is assumed that the anchoring design and specification of the anchors is carried out under the supervision of an engineer with experience in anchoring and concrete works.	
	Installation	Installation of anchors by trained employees is assumed after supervision of a construction engineer.	

The performance of the product specified above is in conformity with the set of declared performance/es mentioned in point No 9. This national declaration of performance is issued, in accordance with the Act of 16 April 2004 on construction products, under the sole responsibility of the manufacturer identified above.

Janki, 27th of February 2020r
Signed for and on behalf of the manufacturer by:

Tomasz Golon

Kierownik Produktu / Product Manager

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Table 1

Dimensions of TT-THROUGHBOLT steel expansion fasteners

Ref.	Fastener marking	d, mm	L (1), mm
1	2	3	4
1	TT ϕ6 x 45	6	45
2	TT ϕ6 x 55	6	55
3	TT ϕ6 x 85	6	85
4	TT ϕ8 x 50	8	50
5	TT ϕ8 x 65	8	65
6	TT ϕ8 x 80	8	80
7	TT ϕ8 x 90	8	90
8	TT ϕ8 x 100	8	100
9	TT ϕ10 x 115	8	115
10	TT ϕ10 x 130	8	130
11	TT ϕ10 x 65	10	65
12	TT ϕ10 x 75	10	75
13	TT ϕ10 x 90	10	90
14	TT ϕ12 x 105	10	105
15	TT ϕ12 x 120	10	120
16	TT ϕ12 x 140	10	140
17	TT ϕ12 x 80	12	80
18	TT ϕ12 x 100	12	100
19	TT ϕ12 x 130	12	120
20	TT ϕ12 x 140	12	140
21	TT ϕ12 x 180	12	180
22	TT ϕ12 x 200	12	200
23	TT ϕ12 x 220	12	220
24	TT ϕ12 x 240	12	240
25	TT ϕ16 x 100	16	100
26	TT ϕ16 x 105	16	105
27	TT ϕ16 x 125	16	125
28	TT ϕ16 x 150	16	150
29	TT ϕ16 x 175	16	175
30	TT ϕ16 x 200	16	200
31	TT ϕ16 x 220	16	220
32	TT ϕ16 x 240	16	240
33	TT ϕ20 x 130	20	130
34	TT ϕ20 x 160	20	160
35	TT ϕ20 x 220	20	220
36	TT ϕ20 x 240	20	240
37	TT ϕ20 x 260	20	260
38	TT ϕ24 x 180	24	180
39	TT ϕ24 x 200	24	200
40	TT ϕ24 x 220	24	220
41	TT ϕ24 x 240	24	240
42	TT ϕ24 x 260	24	260

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Table 1
continued

Ref.	Fastener marking	d, mm	L (1), mm
43	TT-G ϕ8 x 50	8	50
44	TT-G ϕ8 x 65	8	65
45	TT-G ϕ8 x 80	8	80
46	TT-G ϕ8 x 90	8	90
47	TT-G ϕ8 x 115	8	100
48	TT-G ϕ8 x 130	8	115
49	TT-G ϕ10 x 65	8	130
50	TT-G ϕ10 x 75	10	75
51	TT-G ϕ10 x 90	10	90
52	TT-G ϕ10 x 105	10	105
53	TT-G ϕ10 x 120	10	120
54	TT-G ϕ10 x 140	10	140
55	TT-G ϕ12 x 80	10	80
56	TT-G ϕ12 x 100	12	100
57	TT-G ϕ12 x 120	12	120
58	TT-G ϕ12 x 140	12	140
59	TT-G ϕ12 x 180	12	180
60	TT-G ϕ16 x 105	16	105
61	TT-G ϕ16 x 125	16	125
62	TT-G ϕ16 x 150	16	150
63	TT-G ϕ12 x 175	16	175
64	TT-G ϕ16 x 200	16	200
65	TT-G ϕ16 x 220	16	220
66	TT-G ϕ16 x 240	16	240
67	TT-G ϕ20 x 130	20	130
68	TT-G ϕ20 x 160	20	160
69	TT-G ϕ20 x 200	20	200
70	TT-G ϕ20 x 220	20	220
71	TT-G ϕ20 x 240	20	240

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Table 1
continued

Ref.	Fastener marking	d, mm	L [(1)], mm
72	TT-SS ϕ6 x 45	6	45
73	TT-SS ϕ6 x 55	6	55
74	TT-SS ϕ6 x 85	6	85
75	TT-SS ϕ8 x 50	8	50
76	TT-SS ϕ8 x 65	8	65
77	TT-SS ϕ8 x 80	8	80
78	TT-SS ϕ8 x 90	8	90
79	TT-SS ϕ8 x 100	8	100
80	TT-SS ϕ8 x 115	8	115
81	TT-SS ϕ8 x 130	8	130
82	TT-SS ϕ10 x 50	10	50
83	TT-SS ϕ10 x 65	10	65
84	TT-SS ϕ10 x 75	10	75
85	TT-SS ϕ10 x 90	10	90
86	TT-SS ϕ10 x 105	10	105
87	TT-SS ϕ10 x 120	10	120
88	TT-SS ϕ10 x 140	10	140
89	TT-SS ϕ12 x 80	12	80
90	TT-SS ϕ12 x 100	12	100
91	TT-SS ϕ12 x 120	12	120
92	TT-SS ϕ12 x 140	12	140
93	TT-SS ϕ12 x 160	12	160
94	TT-SS ϕ12 x 180	12	180
95	TT-SS ϕ12 x 200	12	200
96	TT-SS ϕ16 x 90	16	90
97	TT-SS ϕ16 x 105	16	105
98	TT-SS ϕ16 x 125	16	125
99	TT-SS ϕ16 x 150	16	150
100	TT-SS ϕ16 x 175	16	175
101	TT-SS ϕ16 x 200	16	200
102	TT-SS ϕ16 x 220	16	220
103	TT-SS ϕ20 x 130	20	130
104	TT-SS ϕ20 x 160	20	160
105	TT-SS ϕ20 x 220	20	220
106	TT-SS ϕ20 x 240	20	240
107	TT-SS ϕ24 x 160	24	160
108	TT-SS ϕ20 x 180	24	180
109	TT-SS ϕ24 x 200	24	200
110	TT-SS ϕ24 x 220	24	220
111	TT-SS ϕ24 x 260	24	260
112	TT-SS ϕ24 x 310	24	310
113	TWH ϕ6 x 55	6	55

(1) – Fasteners of other lengths than specified in the table are also available on request, their use is depending on the required effective depth of anchorage h_{ef}.

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Table 2

Calculated tensile load capacities of fastenings made with use of TT-THROUGHBOLT steel expansion fasteners in non-cracked concrete

Ref.	Fastener marking	Base material type	Effective anchoring depth h_{ef}, mm	Calculated capacity $N_{R,d}$, kN
1	2	4	5	6
1	TT ϕ6	Ordinary concrete class C20/25 [1], non cracked Increase factor ψ_c [2]: C30/37 – 1.22; C40/50 – 1.41; C50/60 – 1.55	40	2.4
2	TT ϕ8		50	3.6
3	TT ϕ10		55	4.8
4	TT ϕ12		70	9.9
5	TT ϕ16		85	13.9
6	TT ϕ20		100	19.8
7	TT ϕ24		130	23.8
8	TWH ϕ6		40	1.0
9	TT-G ϕ8		50	4.8
10	TT-G ϕ10		55	6.3
11	TT-G ϕ12		70	7.9
12	TT-G ϕ16		85	11.9
13	TT-G ϕ20		100	15.9
14	TT-SS ϕ6		40	3.6
15	TT-SS ϕ8		50	4.8
16	TT-SS ϕ10		55	4.8
17	TT-SS ϕ12		70	7.9
18	TT-SS ϕ16		85	11.9
19	TT-SS ϕ20		100	19.8
20	TT-SS ϕ24		130	19.8

[1] – According to the PN-EN 206:2014 standard
[2] – Multiply by this factor the capacities given in the table, to get capacities for concrete class higher than C20/C25

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Table 3

Calculated tensile load capacities of fastenings made with use of TT-THROUGHBOLT steel expansion fasteners in cracked concrete

Ref.	Fastener marking	Base material type	Effective anchoring depth h_{ef}, mm	Calculated capacity $N_{R,d}$, kN
1	2	4	5	6
1	TT ϕ6	Ordinary concrete class C20/25 (1), non cracked Increase factor ψ_c (2): C30/37 – 1.22; C40/50 – 1.41; C50/60 – 1.55	40	1.6
2	TT ϕ8		50	2.4
3	TT ϕ10		55	3.0
4	TT ϕ12		70	4.8
5	TT ϕ16		85	7.9
6	TT ϕ20		100	11.9
7	TT ϕ24		130	15.9
8	TWH ϕ6		40	1.0
9	TT-G ϕ8		50	3.0
10	TT-G ϕ10		55	3.6
11	TT-G ϕ12		70	4.8
12	TT-G ϕ16		85	7.9
13	TT-G ϕ20		100	9.9
14	TT-SS ϕ6		40	1.2
15	TT-SS ϕ8		50	2.4
16	TT-SS ϕ10		55	3.0
17	TT-SS ϕ12		70	3.6
18	TT-SS ϕ16		85	6.3
19	TT-SS ϕ20		100	9.9
20	TT-SS ϕ24		130	9.9

(1) – According to the PN-EN 206:2014 standard
(2) – Multiply by this factor the capacities given in the table, to get capacities for concrete class higher than C20/C25

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Table 4

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary non-cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$[(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
1	TT ϕ6	M6	Ordinary concrete class C20/25 to C50/60 [6], non cracked	40	30	0.2
					60	0.2
					90	0.1
					120	0.1
2	TT ϕ8	M8		50	30	0.4
					60	0.3
					90	0.3
					120	0.2
3	TT ϕ10	M10		55	30	0.9
					60	0.8
					90	0.6
					120	0.5
4	TT ϕ12	M12		70	30	1.7
					60	1.3
					90	1.1
					120	0.8
5	TT ϕ16	M16		85	30	3.1
					60	2.4
					90	2.0
					120	1.6
6	TT ϕ20	M20		100	30	4.9
					60	3.7
					90	3.2
					120	2.5
7	TT ϕ10	M24		130	30	7.1
					60	5.3
					90	4.6
					120	3.5
8	TWH ϕ6	M6		40	30	0.2
					60	0.2
					90	0.1
					120	0.1

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Table 4
continued

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary non-cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$[(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
9	TT-G ϕ8	M8	Ordinary concrete class C20/25 to C50/60 [6], non cracked	50	30	0.4
					60	0.3
					90	0.3
					120	0.2
10	TT-G ϕ10	M10		55	30	0.9
					60	0.8
					90	0.6
					120	0.5
11	TT-G ϕ12	M12		70	30	1.7
					60	1.3
					90	1.1
					120	0.8
12	TT-G ϕ16	M16		85	30	3.1
					60	2.4
					90	2.0
					120	1.6
13	TT-G ϕ20	M20		100	30	4.9
					60	3.7
					90	3.2
					120	2.5
14	TT-SS ϕ6	M6		40	30	0.2
					60	0.2
					90	0.1
					120	0.1
15	TT-SS ϕ8	M8		50	30	0.4
					60	0.3
					90	0.3
					120	0.2
16	TT-SS ϕ10	M10		55	30	0.9
					60	0.8
					90	0.6
					120	0.5
17	TT-SS ϕ12	M12		70	30	1.7
					60	1.3
					90	1.1
					120	0.8

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Table 4
continued

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary non-cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$ [(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
18	TT-SS ϕ16	M16	Ordinary concrete class C20/25 to C50/60 [6], non cracked	85	30	3.1
					60	2.4
					90	2.0
					120	1.6
19	TT-SS ϕ20	M20		100	30	4.9
					60	3.7
					90	3.2
					120	2.5
20	TT-SS ϕ24	M24		130	30	7.1
					60	5.3
					90	4.6
					120	3.5

[1] Load capacity for the case of fire influencing from one side
[2] Anchor spacing $s_{cr,fi}$ not less than $4 \cdot h_{ef}$
[3] Anchor edge distance $c_{cr,fi}$ not less than $2 \cdot h_{ef}$
[4] With fire influencing from more than one side, the anchor edge distance $c_{cr,fi}$ – not less than 300 mm
[5] Calculated load capacity corresponding to the most adverse form of destruction
[6] According to the PN-EN 206:2014 standard

Table 5

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$ [(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
18	TT ϕ6	M6	Ordinary concrete class C20/25 to C50/60 [6], cracked	40	30	0.2
					60	0.2
					90	0.1
					120	0.1
19	TTϕ8	M8		50	30	0.4
					60	0.3
					90	0.3
					120	0.2

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Table 5
continued

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[(1)] $N_{R,d,fi}$[(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
3	TT ϕ10	M10	Ordinary concrete class C20/25 to C50/60 [(6)], cracked	55	30	0.9
					60	0.8
					90	0.6
					120	0.5
4	TT ϕ12	M12		70	30	1.7
					60	1.3
					90	1.1
					120	0.8
5	TT ϕ16	M16		85	30	3.1
					60	2.4
					90	2.0
					120	1.6
6	TT ϕ20	M20		100	30	4.9
					60	3.7
					90	3.2
					120	2.5
7	TT ϕ24	M24		130	30	7.1
					60	5.3
					90	4.6
					120	3.5
8	TWH ϕ6	M6		40	30	0.2
					60	0.2
					90	0.1
					120	0.1
9	TT-G ϕ8	M8		50	30	0.4
					60	0.3
					90	0.3
					120	0.2
10	TT-G ϕ10	M10		55	30	0.9
					60	0.8
					90	0.6
					120	0.5

Table 5
continued

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$[(1),(2),(3),(4),(5)] kN
1	2	3	4	5	6	7
11	TT-G ϕ12	M10	Ordinary concrete class C20/25 to C50/60 [6], cracked	70	30	1,7
					60	1,3
					90	1,1
					120	0,8
12	TT-G ϕ16	M12		85	30	3,1
					60	2,4
					90	2,0
					120	1,6
13	TT-G ϕ20	M16		100	30	4,9
					60	3,7
					90	3.2
					120	2.5
14	TT-SS ϕ6	M6		40	30	0.2
					60	0.2
					90	0.1
					120	0.1
15	TT-SS ϕ8	M8		50	30	0.4
					60	0.3
					90	0.3
					120	0.2
16	TT-SS ϕ10	M10		55	30	0.9
					60	0.8
					90	0.6
					120	0.5
17	TT-SS ϕ12	M12		70	30	1.7
					60	1.3
					90	1.1
					120	0.8

Table 5
continued

Calculated load capacities of fastenings with use of TT-THROUGHBOLT expansion fasteners in ordinary cracked concrete for any direction of load under the influence of fire

Ref.	Fastener marking	Stud thread size	Base material type	Effective anchoring depth h_{ef}, mm	Max. fire influence time, min	Calculated capacity[1] $N_{R,d,fi}$ [1),2),3),4),5)] kN
1	2	3	4	5	6	7
18	TT-SS ϕ16	M16	Ordinary concrete class C20/25 to C50/60 [6], cracked	85	30	3,1
					60	2,4
					90	2,0
					120	1,6
19	TT-SS ϕ20	M20		100	30	4,9
					60	3,7
					90	3.2
					120	2.5
20	TT-SS ϕ24	M24		130	30	7.1
					60	5.3
					90	4.6
					120	3.2

[1] Load capacity for the case of fire influencing from one side
[2] Anchor spacing $s_{cr,fi}$ not less than $4 \cdot h_{ef}$
[3] Anchor edge distance $c_{cr,fi}$ not less than $2 \cdot h_{ef}$
[4] With fire influencing from more than one side, the anchor edge distance $c_{cr,fi}$ – not less than 300 mm
[5] Calculated load capacity corresponding to the most adverse form of destruction
[6] According to the PN-EN 206:2014 standard

Table 6

Installation and spacing parameters of TT-THROUGHBOLT expansion fasteners

Ref	Parameter		Fastener diameter					
		ϕ6	ϕ8	ϕ10	ϕ12	ϕ16	ϕ20	ϕ24
1	2	3	4	5	6	7	8	9
1	Maximum hole diameter d_o, mm	6	8	10	12	16	20	24
2	Minimum hole depth h_o, mm	50	60	70	90	11	130	145
3	Minimum anchoring depth h_{ef}, mm	40	50	55	70	85	100	130
4	Tightening moment T_{ins}, Nm	10	20	45	65	150	250	300
5	Minimum thickness of base material h_{min}, mm	$2\ h_{ef}$; ≥ 100 mm						
6	Minimum spacing between fasteners $s_{cr,N}$, mm	$3\ h_{ef}$; ≥ 100 mm						
7	Minimum edge distance $c_{cr,N}$, mm	$2\ h_{ef}$; ≥ 100 mm						

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Table 7

Characteristic tensile load capacities of fastenings made with use of TT-THROUGHBOLT steel expansion fasteners in non-cracked concrete

Ref.	Fastener marking	Base material type	Effective anchoring depth h_{ef}, mm	Calculated capacity $N_{R,d}$, kN
1	2	4	5	6
1	TT ϕ6	Ordinary concrete class C20/25 (1), non cracked Increase factor ψ_c (2): C30/37 – 1.22; C40/50 – 1.41; C50/60 – 1.55	40	6.0
2	TT ϕ8		50	9.0
3	TT ϕ10		55	12.0
4	TT ϕ12		70	25.0
5	TT ϕ16		85	35.0
6	TT ϕ20		100	50.0
7	TT ϕ24		130	60.0
8	TWH ϕ6		40	2.5
9	TT-G ϕ8		50	12.0
10	TT-G ϕ10		55	16.0
11	TT-G ϕ12		70	20.0
12	TT-G ϕ16		85	30.0
13	TT-G ϕ20		100	40.0
14	TT-SS ϕ6		40	9.0
15	TT-SS ϕ8		50	12.0
16	TT-SS ϕ10		55	12.0
17	TT-SS ϕ12		70	20.0
18	TT-SS ϕ16		85	30.0
19	TT-SS ϕ20		100	50.0
20	TT-SS ϕ24		130	50.0

(1) – According to the PN-EN 206:2014 standard
(2) – Multiply by this factor the capacities given in the table, to get respective capacities for concrete class higher than C20/C25

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Table 8

Characteristic tensile load capacities of fastenings made with use of TT-THROUGHBOLT steel expansion fasteners in cracked concrete

Ref.	Fastener marking	Base material type	Effective anchoring depth h_{ef}, mm	Calculated capacity $N_{R,d}$, kN
1	2	4	5	6
1	TT ϕ6	Ordinary concrete class C20/25 (1), non cracked Increase factor ψ_c (2): C30/37 – 1.22; C40/50 – 1.41; C50/60 – 1.55	40	4.0
2	TT ϕ8		50	6.0
3	TT ϕ10		55	7.5
4	TT ϕ12		70	12.0
5	TT ϕ16		85	20.0
6	TT ϕ20		100	30.0
7	TT ϕ24		130	40.0
8	TWH ϕ6		40	2.5
9	TT-G ϕ8		50	7.5
10	TT-G ϕ10		55	9.0
11	TT-G ϕ12		70	12.0
12	TT-G ϕ16		85	20.0
13	TT-G ϕ20		100	25.0
14	TT-SS ϕ6		40	3.0
15	TT-SS ϕ8		50	6.0
16	TT-SS ϕ10		55	7.5
17	TT-SS ϕ12		70	9.0
18	TT-SS ϕ16		85	16.0
19	TT-SS ϕ20		100	25.0
20	TT-SS ϕ24		130	25.0

(1) – According to the PN-EN 206:2014 standard
(2) – Multiply by this factor the capacities given in the table, to get respective capacities for concrete class higher than C20/25