Declaration of Performance, DoP 300/2013

(Version 5)

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1. Product type: Screws for load-bearing timber structures
2. Identification: NKT Fasteners & Paslode screws
3. Intended use: For load-bearing wooden structures
4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

   ITW BYG
   Gl. Banegaardsvej 25
   DK-5500 Middelfart
5. Authorised representative: N/A
6. System of assessment: 3
7. Notified body / Test laboratory:

   VHT Versuchsanstalt für Holz und Trockenbau
   no. 1503
   Annastrasse 18
   64285 Darmstadt
   Germany

   STROJIRENSKY ZKUSEBNI USTAV, s.p.
   no. 1015
   Tovarni 5
   466 21 JABLONEC nad Nisou
   Czech Republic

   Danish Technological Institute
   no. 1235
   Gregersensvej 1
   DK-2630 Taastrup

   performed ITT under system 3 (b) ”determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation”.
8. For the Paslode connector screws a European Technical Assessment has been issued:
   DS Certificering A/S, ETA-Danmark, Kollegievej 6, DK-2920 Charlottenlund issued ETA-09/0273 performed under system 2+ and issued 2015-04-28.
9. Declared performance:

   Notes to the table:
   Characteristic values are calculated or tested according to EN 14592:2008+A1:2012 except for the Paslode connector screws which are declared according to ETA-09/0273.
10. The performance of the products is in conformity with the declared performance in point 9.

    This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

    Signed for and on behalf of the manufacturer by:

    Flemming Sørensen
    Technical Manager

    Middelfart, 2020-09-23

Brand name	Nominal diameter/ corediameter d/d1 [mm/mm2]	Length [mm]	Head diameter [mm]	Threaded length min. Lg [mm]	Corrosion protection	Service class	Material	Steel standard	Declared values according to EN 14592:2008 + A1:2012 — Characteristic values: Withdrawal parameter $f_{ax,k}$ [N/mm^2]	Head pull-through parameter $f_{head,k}$ [N/mm^2]	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	Torsional ratio
SPUN®+ Countersunk	3,5/2,3	15	6,8	Full	Stainless Quality A4 Passivated with wax	1-3	AISI 316 A4	EN 10088-1	14	18	2000	2,8	1,7
		20											
		25											
		30											
		40		27									
		50		35									
	4,0/2,6	30	8	Full					15	19	2800	4,1	2,4
		40		27									
	4,5/2,9	50	8,5	35					15	19	3500	4,8	1,5
		60		35									
	5,0/3,2	50	9,6	35					15	19	5000	5,3	1,5
		60		35									
		70		45									
		80		45									
		90		54									
		100		54									
		120		60									
	6,0/3,9	90	11,3	54					14	18	8100	8	1,5
		100		54									
		120		60									
		140		60									
		150		60									
		240		60									
	3,0/1,8	15	6	Full	Electrogalv. / CLIMATE® G3	1-3	AISI 1022	ASTM A510	10	12	1600	3,3	2,7
		20											
		25											
		30											
		40		26									
	3,5/2,3	15	6,8	full					14	18	2000	2,8	1,7
		20											
		25											
		30											
		40		27									
		50		35									
	4,0/2,5	20	8,0	Full					15	19	2900	5,3	2,4
		25											
		30											
		35											
		40		27									
		45											
		50		35									
		60											
		70		44									
	4,5/2,8	25	8,5	Full	Electrogalv.	1			15	19	4400	6,7	3,1
		30			Electrogalv. / CLIMATE® G3	1-3							
		35											
		40		27									
		50		35									
		60											
		70		45									
		80											
	5,0/3,2	25	9,6	Full					15	19	6100	8,5	2,5
		30											
		35											
		40											
		50		35									
		60											
		70		45									
		80											
		90		54									
		100											
		120		60									
		150			CLIMATE® G3	1-3							
	6,0/3,9	40	11,4	Full	CLIMATE® G3	1-3			14	18	10900	14,0	3,1
		50											
		60		35	Electrogalv. / CLIMATE® G3	1-3							
		70		45									
		80											
		90		54									
		100											
		110			CLIMATE® G3								
		120		60	Electrogalv. / CLIMATE® G3								
		140			CLIMATE® G3								
		150			Electrogalv. / CLIMATE® G3								
		160											
		180											
		200											
		240											

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m ; torsional ratio at a characteristic timber density of 350 kg/m

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							Declared values according to EN 14592:2008 + A1:2012						
									Characteristic values				
Brand name	Nominal diameter/ corediameter d/d1 [mm/mm2]	Length [mm]	Head diameter [mm]	Threaded length min. Lg [mm]	Corrosion protection	Service class	Material	Steel standard	Withdrawal parameter $f_{ax,k}$ [N/mm^2]	Head pull-through parameter $f_{head,k}$ [N/mm^2]	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	Torsional ratio
SPUN®+ Panhead	3,0/1,8	15 20 30	6	Full	Electrogalv.	1	AISI 1022	ASTM A510	10	12	1600	3,3	2,7
	3,5/2,3	15 20 25 30 40 50	6,8	Full 27 35	Electrogalv. / DURAMAX™1000	1-3			14	18	2000	2,8	1,7
	4,0/2,5	20 25 30 35 40 50 60	8	Full 35	Electrogalv. / DURAMAX™1000	1-3			15	19	2900	5,3	2,4
	4,5/2,8	20 25 30 35 40 50 60 70 80	8,6	Full 45	Electrogalv. / DURAMAX™1000	1-3			15	19	4400	6,7	3,1
	5,0/3,2	25 30 40 50 60 70 80 90 100	9,6	Full 74	Electrogalv. / DURAMAX™1000 DURAMAX™1000	1-3			15	19	6100	8,5	2,9
	6,0/3,9	40 50 60 70 80 90 100	11,6	Full 45 74	DURAMAX™1000	1-3			14	18	10900	14,0	3,2
TOPKON® Countersunk	6,0/4,2	240 260 280 300	11,8	70	Yellow zinc	1-2	35 B2 VK	EN 10269	15,0	11,8	10600	13	6,4
	8,0/5,1	140 160 180 200 220 240 260 280 300 320 340 360 380 400	14,0	80					14,0	10,4	23400	22,0	1,5
	10,0/6,0	240 260 280 300 320 340 360 380 400	17,8	100					10,9	9,6	39400	30,7	3,1

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m ; torsional ratio at a characteristic timber density of 350 kg/m

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							Declared values according to EN 14592:2008 + A1:2012						
									Characteristic values				
Brand name	Nominal diameter/ corediameter d/d1 [mm/mm2]	Length [mm]	Head diameter [mm]	Threaded length min. Lg [mm]	Corrosion protection	Service class	Material	Steel standard	Withdrawal parameter $f_{ax,k}$ [N/mm^2]	Head pull-through parameter $f_{head,k}$ [N/mm^2]	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	Torsional ratio
TOPKON® DH Dischead	6,0/4,2	120 140 180 200	15	70	Yellow zinc	1-2	35 B2 VK	EN 10269	15,0	11,8	10600	13,0	6,4
	8,0/5,1	50 60 80 100 120 140 160 180 200 220 240 260 300	19,0	45 50 80					14,0	18,7	23400	22,0	1,5
	10,0/6,0	300	23,0	80					10,9	10,4	39400	30,7	3,1
TOPKON® TK Dischead Outdoor Model A	6,0/3,8	40 50 60 70 80 90	13	35 50	Outdoor 1000 h NSS	1-3	AISI 10B21	ASTM A510	16	29	9000	14	4
	8,0/3,8	40 70 75 90	18	35 50					14	25	16000	22	4
	10,0/6,1	80 100 120	22	70					12	23	28000	31	4
TOPKON® TK Dischead Outdoor Model B	6,0/3,8	100 120 140	13	70	Outdoor 1000 h NSS	1-3	AISI 10B21	ASTM A510	16	29	9000	14	4
	8,0/3,8	150 170 300	18	80					14	25	16000	22	4
	10,0/6,1	140 160 220	22	100					12	23	28000	31	4
TOPKON® DH Dischead Outdoor	8,0	50 80 100 120 140 160 180 200 220 240 280 320 360 400	17	Full 50 80	Outdoor 1000 h NSS	1-3	35 B2 VK	EN 10269	16,6	28,4	17500	15,5	1,8
	10,0	240 280 320 360 400	21	100					14,1	31,7	23450	21,8	1,8

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m ; torsional ratio at a characteristic timber density of 350 kg/m

NKT FASTENERS

Paslode

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Brand name	Nominal diameter/ coredіameter d/d1 [mm/mm2]	Length [mm]	Head diameter [mm]	Threaded length min. Lg [mm]	Corrosion protection	Service class	Declared values according to EN 14592:2008 + A1:2012						
							Material	Steel standard	Characteristic values				
									Withdrawal parameter $f_{ax,k}$ [N/mm^2]	Head pull-through parameter $f_{head,k}$ [N/mm^2]	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	Torsional ratio
TOPCON® HEX Outdoor	6,5/4,1	45	13,5	27	Outdoor 1000 h NSS	1-3	AISI 1022 10B21	ASTM A510	16	26	11500	16	3
		55		33									
		65		38									
		75		45									
		90		55									
		110		60									
		120											
		140											
	8,0/5,2	45	17,5	27					14	26	16000	21	4
		55		33									
		65		38									
		75		45									
		100		60									
		120											
		130											
	10,0/6,2	50	21,5	29					11	22	26000	31	4
		65		38									
		75		45									
		90		55									
		100		60									
		120											
		140											
		150											
Adjustment screw Electrogalv.	6,0/4,3	80	12,0	48	Electrogalv.	1	AISI 1020 AISI 1022	ASTM A510	11,2	14,1	10500	13,7	2,9
		100		60									
		120		70									
Adjustment screw Electrogalv. (60° CS)	6,0/3,6	70	9,6	40	Electrogalv.	1	AISI 1022	EN 10088-1	14	22	8800	11	1,8
		80											
		90											
		100											
		110		60									
		120											
Adjustment screw Electrogalv. Drill point	6,0/3,6	80	9,6	45	Electrogalv	1	AISI 1022	EN 10088-1	14	22	8800	11	1,8
		100											
PLATA®-FLEX Countersunk	4,2/2,8	35	7,2	20	Yellow zinc	1-2	AISI 1020 AISI 1022	ASTM A510	10,5	17,7	3400	5,5	2,3
		45		27									
		55		35									
	4,8/2,9	70	7,5	50					9,9	15,0	5200	6,9	2,5
Basic Countersunk	3,5/2,3	30	7	24	Ruspert	1-3	AISI 1022	ASTM A510	9	10,8	1800	2,5	1,5
		40		27									
		50		33									
	4,0/2,5	30	8	24					10,5	11,7	2600	4,8	2,1
		40		27									
		50		35									
		60		39									
		70		39									
	4,5/2,8	30	8,5	24					8,9	13,5	3900	6	2,8
		40		27									
		50		35									
		60		40									
		70		40									
		80		45									
	5,0/3,2	30	9,6	27					9,3	11,2	5400	7,7	2,6
		40		27									
		50		35									
		60		40									
		70		40									
		80		45									
		90		55									
		100											
		120		60									
	6,0/3,9	80	11,4	45					9,2	9,4	9800	12,6	2,8
		100		55									
		120		60									
		150											

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m ; torsional ratio at a characteristic timber density of 350 kg/m

									Declared values according to EN 14592:2008 + A1:2012				
									Characteristic values				
Brand name	Nominal diameter/ corediameter d/d1 [mm/mm2]	Length [mm]	Head diameter [mm]	Threaded length min. Lg [mm]	Corrosion protection	Service class	Material	Steel standard	Withdrawal parameter $f_{ax,k}$ [N/mm^2]	Head pull-through parameter $f_{head,k}$ [N/mm^2]	Yield moment $M_{y,k}$ [Nmm]	Tensile capacity $f_{tens,k}$ [kN]	Torsional ratio
Basic Stainless A4	4,0/2,6	40	7,7	27	Stainless Quality A4	1-3	AISI 316 A4	EN 10088-1	10,5	11,7	2500	3,7	2,4
	4,5/2,9	50	8,7	35					8,9	13,5	3100	4,3	1,5
		60											
	5,0/3,2	50	9,7	35					9,3	11,2	4500	4,7	1,5
		60											
		70		45									
		80											
	6,0/3,9	100	11,7	54					9,2	9,4	7200	7,2	1,5
Decking screw High end	6,0	60	6,1	31+16	Stainless Quality A4 Passivated with wax	1-3	AISI 316 A4	EN 10088-1	13	Fax,Rk =1100 N (16 mm thread)	8800	8,8	1,8
Decking Screw Outdoor	4,5/2,7	42	7,1	25	Outdoor 1000 h NSS	1-3	AISI 1020, 1022	ASTM A510	13	23	3200	6,5	3,0
		55		31									
	4,8/3,0	75	7,6	47					14	21	4700	8,0	2,0
Decking screw Deck Pro	4,5	60	4,8	34	A4 Outdoor 1000 h NSS	1-3	AISI 316 / 1022	EN 10088-1 / ASTM A510	14	Fax,Rk =1000 N	2500	4,0	2
Decking Screw A4 / A2	4,2/2,5	35	7,0	25	A4	1-3	AISI 316 / 304	EN 10088-1	13	23	2000	4,0	1,5
		42			A4 / A2								
		55		33									
		60			A4								
	4,8 / 3,0	75	7,5	48	A4 / A2				13	21	3000	5,0	2,0
Paslode Building connector screw	5,0/3,0	25	8	18	Electrogalv. 12 µm	1-2	AISI 1022	ASTM A510	15,2	NPD	6450	9,7	5,7
		35		28									
		40		33	Electrogalv.12 µm / Climate G3	1-3							
		50		43	Electrogalv. 12 µm	1-2							
	5,0/3,0	40	8	33	Stainless Quality A4 Passivated with wax	1-3	AISI 316	EN 10088-1	15,2	NPD	4500	7,5	3
					Stainless Quality A2 Passivated with wax		AISI 304						
NKT BASIC Connector screw	5,0/3,0	40	8	33	Electrogalv. 12 µm Outdoor 1000 h NSS	1-2	AISI 1020-1022	ASTM A510	10	12	5000	8	2,6
DBCon Construction screw	6,5/4,0	65	8	32	Outdoor 1000 h NSS	1-3	AISI 1022 10B21	ASTM A510	17	79	12000	15	3
		90		43									
		130		65									
		160		75									
		190											
		220											
	8,2/4,8	90	10	45					16	56	19000	23	3
		130		65									
		160		75									
		190											
		220											

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m ; torsional ratio at a characteristic timber density of 350 kg/m