

Declaration of Performance, DoP 100/2013

(Version 4)

To visualize previous versions, click on relevant link : http://www.itwcp-techdocs.eu/DoP/Archive/DOP100_V3/DOP_100_English_V3.pdf

1. Product type: Wire-welded collated nails for nailing tools
2. Identification: haubold nails
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 Construction Products
Gl. Banegaardsvej 25
DK-5500 Middelfart
5. Authorised representative: N/A
6. System of assessment: 3
7. Notified body / Test laboratory:

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

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. Declared performance to ETA: N/A
9. Declared performance:

Notes to the table:

Characteristic values are calculated or tested according to EN 14592:2008+A1:2012.

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
Engineering Manager

Middelfart, 06.02.2023

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Nail diameter [mm]	Shank profile	Nail length [mm]	Head diameter / Head area [mm/mm ²]	Length of nail point [mm]	Length of ring shank [mm]	Corrosion protection	Declared values according to EN 14592:2008 + A1:2012						
							Service class	Material	Steel standard	Characteristic values f _{u,k} min. 600 or 700 N/mm ²			
										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} [N]
2,1	Smooth	27-65	4,6/16 5/19	3,0	N/A	Bright Electro-Galv 5 µm Electro-Galv 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	1400	NPD
2,1	Ring	27-65	4,6/16 5/19	3,0	17-55	Bright Electrogalv. 5 µm Electrogalv. 12 µm A2 A4	1 1 1-2 1-3 1-3	C9D C9D C9D 1.4301 1.4401	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2 EN 10088-1 EN 10088-1	6,9 6,7 6,7 8,2 8,2	19,4	1100 1100 1100 1150 1150	NPD
2,3	Smooth	40-60	5,7/26	3,2	N/A	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	1800	NPD
2,3	Helical Screw	40-60	5,7/26	3,2	17-37	Bright	1	C9D	EN ISO 16120-2	7,4	20,9	1700	NPD
2,5	Smooth	35-75	6,1/29	3,5	N/A	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	2250	NPD
2,5	Ring	35-75	6,1/29	3,5	24-54	Bright Electrogalv. 5 µm Electrogalv. 12 µm A2 A4	1 1 1-2 1-3 1-3	C9D C9D C9D 1.4301 1.4401	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2 EN 10088-1 EN 10088-1	7,5 7,2 7,2 7,6 7,6	20,9	1550 1550 1550 1450 1450	NPD
2,5	Ring	50-65	5,8/26	3,5	38-53	HDG min. 55 µm A4	1-3	AISI 1008	ASTM A510	6,3	18	2150	3,1
2,5	Ring	65	6/28	3,5	53	HDG min. 55 µm A4	1-3	AISI 1008 1.4401	ASTM A510 EN 10088-1	6,3	18	2150	3,1
2,5	Helical Screw	70	6,1/29	3,5	46	Bright	1	D9-1	EN ISO 16120-2	2,4	8,5	1900	NPD
2,5	Helical Screw	40-75	6,1/29	3,5	16-46	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	6,2	20,9	2400	NPD
2,8	Smooth	50-90	6,5/33	3,9	N/A	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	3050	NPD
2,8	Ring	36-90	6,5/33	3,9	25-60	Bright Electrogalv. 5 µm Electrogalv. 12 µm A2 A4	1 1 1-2 1-3 1-3	C9D C9D C9D 1.4301 1.4401	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2 EN 10088-1 EN 10088-1	6,8 7,3 7,3 7,3 7,3	21,6	2300 2450 2450 1950 1950	NPD
2,8	Helical Screw	45-90	6,5/33	3,9	21-66	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	7,6	21,6	3350	NPD
2,8	Ring	75	6,5/33	3,9	61	HDG min. 55 µm A4	1-3	AISI 1008 1.4401	ASTM A510 EN 10088-1	6,4	18	3150	4,2
3,0	Smooth	19-32 19-45 25	9,5/70	3,4	N/A	Electro-Galv 5 µm HDG* min. 55 µm A2	1 1-3 1-3	C9D C9D 1.4301	EN ISO 16120-2 EN ISO 16120-2 EN 10088-1	2,4	8,5	3100	NPD
3,0	Ring	19-25	9,5/70	3,4	15-20	HDG* min. 55 µm A2	1-3 1-3	C9D 1.4301	EN ISO 16120-2 EN 10088-1	2,4	8,5	3100	NPD
3,1	Smooth	50-90	7,1/40	3,4	N/A	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	3950	NPD
3,1	Ring	50-90	7,1/40	3,4	39-60	Bright Electrogalv. 5 µm Electrogalv. 12 µm HDG min. 55 µm A2 A4	1 1 1-2 1-3 1-3 1-3	C9D C9D C9D AISI 1008 1.4301 1.4401	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2 ASTMA510 EN 10088-1 EN 10088-1	6,8 7,9 7,1 7,1 8,4 8,4	15,3	3000 3000 3000 2400 4000 4000	NPD
3,1	Helical Screw	50-90	7,1/40	3,4	26-66	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	7,1	15,3	4600	NPD
3,1	Ring	90	6,5/33	3,4	26	HDG min. 55 µm	1-3	AISI 1008	ASTM A510	4,8	16	4500	5
3,4	Smooth	90	7,1/40	3,7	N/A	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	2,4	8,5	5050	NPD
3,4	Ring	90	7,1/40	3,7	71	Bright Electrogalv. 5 µm Electrogalv. 12 µm	1 1 1-2	C9D C9D C9D	EN ISO 16120-2 EN ISO 16120-2 EN ISO 16120-2	7,2 8,7 8,7	15,2	4150	NPD

Coating type: 2 (to facilitate insertion)

HDG = Hot-dip galvanized

NPD = No Performance Determined

f_{ax,k} and f_{head,k} are tested at a characteristic timber density of 350 kg/m³

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							Declared values according to EN 14592:2008 + A1:2012						
Nail diameter [mm]	Shank profile	Nail length [mm]	Head diameter / Head area [mm/mm ²]	Length of nail point [mm]	Length of ring shank [mm]	Corrosion protection	Service class	Material	Steel standard	Characteristic values $f_{u,k}$ min. 600 or 700 N/mm ²			
										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 $f_{tens,k}$ [N]
2,1 - 3,8	Smooth	50-130	4,6/16 - 7,5/44	3,0/3,8	N/A	Bright Electro-Galv 5 µm Electro-Galv 12 µm Electro-Galv 25 µm HDG 50 µm	1-3	SAE 1010	ASTM A510	2,4	8,5	2,1: 1200 2,3: 1550	NPD
2,1 - 3,8	Helical screw	50-130	4,6/16 - 7,5/44	3,0/3,8	40-110	Bright Electro-Galv 5 µm Electro-Galv 12 µm Electro-Galv 25 µm HDG 50 µm	1-3	SAE 1010	ASTM A510	2,4	8,5	2,3: 1550 2,5: 1900 2,8: 2600	NPD
2,1 - 3,8	Ring	22-130	4,6/16 - 7,5/44	3,0/3,8	12-110	Bright Electro-Galv 5 µm Electro-Galv 12 µm Electro-Galv 25 µm HDG 50 µm	1-3	SAE 1010	ASTM A510	2,4	8,5	2,3: 1550 2,8: 2600	NPD

NAILScrew®

2,8	NailScrew®	65 75	7/38 6,7/35	4,2	33 43	Bright ElectroGalv. 12 µm	1 1-2	17MnB3 or 20MnB4	EN 10263	8,3	18	2500	NPD
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Coating type: 2 (to facilitate insertion)

HDG = Hot-dip galvanized

NPD = No Performance Determined

$f_{ax,k}$ and $f_{head,k}$ are tested at a characteristic timber density of 350 kg/m³