NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Material requirements and customer information

Product: (A03) Plate

Steel standard and grade: (B02) EN10025-2:2019 S355K2

Delivery condition: (B04) Normalized rolled (+N)

Surface tolerance: EN 10163-2 B3

Length tolerance: EN 10029 Table 3

Width tolerance: EN 10029 Table 2

Thickness tolerance: EN 10029 Class A

Flatness tolerance: EN 10029 Table 4 Class N

Customer name and address (A06)

4102
BE Group Oy AB
BOX 54
15101 LAHTI
Finland

Certificate address

4102001
certificates@begroup.fi;
Finland
CERTIFICATES@BEGROUP.FI

Supplementary information: (C04)

Fully Killed and Fine Grain

Visual examination and dimensional checking: Satisfactory. The results of tests performed are in compliance with the requirements. (Z01)

Details of supplied materials dimensions, weights and pieces

Heat/Slab (B07)	Plate No. (B06)	Item	Thickness mm (B09)	Width mm (B10)	Length mm (B11)	Pieces (B08)	Gross kg (B12)	Hard stamp	Stamp location	Customer remark (B99)
61497B4	3263S	3	16.0	2000	6000	1	1 507	S355K2+N	Head	P097977
61591F6	4271S	7	15.0	2000	6000	1	1 413	S355K2+N	Head	P097977
61591F2	4282S	7	15.0	2000	6000	1	1 413	S355K2+N	Head	P097977
61585E4	4528S	7	15.0	2000	6000	3	4 239	S355K2+N	Head	P097977
61586A4	4529S	7	15.0	2000	6000	4	5 652	S355K2+N	Head	P097977
61652B4	7155S	7	15.0	2000	6000	2	2 826	S355K2+N	Head	P097977
61498D5	2613S	9	12.0	2000	6000	1	1 130	S355K2+N	Head	P097977
61515B3	3274S	9	12.0	2000	6000	4	4 520	S355K2+N	Head	P097977
61489H6	3393S	9	12.0	2000	6000	4	4 520	S355K2+N	Head	P097977
61489I2	3484S	9	12.0	2000	6000	4	4 520	S355K2+N	Head	P097977

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Details of supplied materials dimensions, weights and pieces

Heat/Slab (B07)	Plate No. (B06)	Item	Thickness mm (B09)	Width mm (B10)	Length mm (B11)	Pieces (B08)	Gross kg (B12)	Hard stamp	Stamp location	Customer remark (B99)
61489I1	3486S	9	12.0	2000	6000	2	2 260	S355K2+N	Head	P097977
61515G3	4188S	9	12.0	2000	6000	2	2 260	S355K2+N	Head	P097977
61587A1	4240S	11	20.0	2000	6000	1	1 884	S355K2+N	Head	P097977
61589J4	4250S	11	20.0	2000	6000	1	1 884	S355K2+N	Head	P097977
61589C4	4291S	11	20.0	2000	6000	1	1 884	S355K2+N	Head	P097977
61589D4	4292S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61589D1	4295S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61589C2	4301S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61589D2	4302S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61585J4	4305S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61585J2	4368S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61586B3	4369S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61585J1	4378S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61586B2	4379S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61588H3	4394S	11	20.0	2000	6000	1	1 884	S355K2+N	Head	P097977
61588H1	4404S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61589B2	4414S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61589B4	4433S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61589B1	4434S	11	20.0	2000	6000	2	3 768	S355K2+N	Head	P097977
61588D1	4441S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61586F2	4538S	11	20.0	2000	6000	3	5 652	S355K2+N	Head	P097977
61591I1	4589S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61592I2	4628S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61592I1	4629S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61591I3	4639S	11	20.0	2000	6000	4	7 536	S355K2+N	Head	P097977
61590E4	5430S	11	20.0	2000	6000	3	5 652	S355K2+N	Head	P097977
61588E1	5127S	12	25.0	2000	6000	1	2 355	S355K2+N	Head	P097977

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Details of supplied materials dimensions, weights and pieces

Heat/Slab (B07)	Plate No. (B06)	Item	Thickness mm (B09)	Width mm (B10)	Length mm (B11)	Pieces (B08)	Gross kg (B12)	Hard stamp	Stamp location	Customer remark (B99)
61293J2	9145S	19	10.0	2450	12000	1	2 308	S355K2+N	Head	P097977
61303K2	9265S	19	10.0	2450	12000	1	2 308	S355K2+N	Head	P097977
						98	167 575			

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Chemical composition (heat analysis) all results in %

Heat No. (B07)		C	Mn	Si	P	S	Cr	Cu	Ni	Mo	Al	Nb	V	Ti	N	B
Set values:	min.			0.15							0.020					
	max.	0.20	1.60	0.25	0.025	0.025	0.290	0.400	0.300	0.080	0.100	0.060	0.100	0.050	0.0120	0.0008
61293		0.16	1.40	0.20	0.010	0.003	0.039	0.044	0.025	0.004	0.037	0.019	0.002	0.002	0.0041	0.0002
61303		0.15	1.39	0.23	0.008	0.004	0.038	0.041	0.021	0.004	0.035	0.019	0.001	0.002	0.0045	0.0002
61489		0.16	1.38	0.18	0.010	0.004	0.026	0.032	0.014	0.002	0.040	0.019	0.002	0.002	0.0037	0.0002
61497		0.17	1.48	0.20	0.014	0.002	0.037	0.043	0.018	0.002	0.041	0.017	0.001	0.002	0.0036	0.0003
61498		0.17	1.48	0.19	0.014	0.005	0.022	0.022	0.011	0.001	0.043	0.017	0.001	0.002	0.0033	0.0002
61515		0.16	1.37	0.18	0.010	0.003	0.027	0.044	0.017	0.002	0.034	0.019	0.001	0.002	0.0037	0.0002
61585		0.17	1.47	0.21	0.010	0.011	0.031	0.045	0.019	0.001	0.040	0.040	0.003	0.002	0.0045	0.0003
61586		0.17	1.47	0.22	0.012	0.004	0.020	0.019	0.008	0.001	0.043	0.039	0.001	0.002	0.0030	0.0003
61587		0.17	1.49	0.21	0.014	0.007	0.044	0.028	0.017	0.001	0.036	0.040	0.002	0.002	0.0032	0.0003
61588		0.16	1.51	0.21	0.011	0.005	0.035	0.034	0.019	0.001	0.042	0.040	0.001	0.002	0.0040	0.0002
61589		0.18	1.49	0.22	0.010	0.003	0.040	0.038	0.020	0.001	0.044	0.041	0.003	0.002	0.0035	0.0003
61590		0.16	1.46	0.24	0.012	0.004	0.032	0.028	0.020	0.002	0.048	0.040	0.002	0.002	0.0042	0.0002
61591		0.18	1.52	0.22	0.010	0.006	0.034	0.036	0.018	0.001	0.032	0.040	0.001	0.002	0.0047	0.0003
61592		0.17	1.47	0.21	0.011	0.007	0.038	0.041	0.021	0.001	0.040	0.039	0.004	0.002	0.0042	0.0003
61652		0.17	1.47	0.22	0.015	0.002	0.041	0.034	0.015	0.002	0.040	0.042	0.001	0.002	0.0036	0.0003

Heat No. (B07)		CEV	Remark (C70)
Set values:	min.		
	max.	0.45	
61293		0.41	1 3 4 6
61303		0.40	1 3 4 6
61489		0.40	1 3 4 6
61497		0.42	1 3 4 6
61498		0.43	1 3 4 6
61515		0.40	1 3 4 6
61585		0.42	1 3 4 6
61586		0.42	1 3 4 6

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Chemical composition (heat analysis) all results in %

Heat No. (B07)	CEV	Remark (C70)
Set values: min.		
max.	0.45	
61587	0.43	1 3 4 6
61588	0.43	1 3 4 6
61589	0.44	1 3 4 6
61590	0.42	1 3 4 6
61591	0.44	1 3 4 6
61592	0.43	1 3 4 6
61652	0.43	1 3 4 6

Supplementary information (C99)

CEV = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

1 = Basic Oxygen Steel, 2 = Electric Arc Furnace, 3 = Ladle Refined, 4 = Calcium Treated, 5 = Vacuum Degassed, 6 = Continuous Cast, 7 = Ingot

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Thickness mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield MPa (C11)	Yield type	UTS Rm MPa (C12)	Elong. type	Elongation % (C13)	Yield/UTS
61498D5	2613S-1-2	12.0	R	H	T	420	REH	560	A5	34	0.75
61497B4	3263S-2-1	16.0	R	H	T	430	REH	554	A5	29	0.78
61515B3	3274S-1-1	12.0	R	H	T	403	REH	523	A5	34	0.77
61515B3	3274S-1-2	12.0	R	H	T	403	REH	523	A5	34	0.77
61515B3	3274S-2-1	12.0	R	H	T	403	REH	523	A5	34	0.77
61515B3	3274S-2-2	12.0	R	H	T	403	REH	523	A5	34	0.77
61489H6	3393S-1-1	12.0	R	H	T	431	REH	530	A5	35	0.81
61489H6	3393S-1-2	12.0	R	H	T	431	REH	530	A5	35	0.81
61489H6	3393S-2-1	12.0	R	H	T	431	REH	530	A5	35	0.81
61489H6	3393S-2-2	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I2	3484S-1-1	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I2	3484S-1-2	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I2	3484S-2-1	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I2	3484S-2-2	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I1	3486S-2-1	12.0	R	H	T	431	REH	530	A5	35	0.81
61489I1	3486S-2-2	12.0	R	H	T	431	REH	530	A5	35	0.81
61515G3	4188S-1-1	12.0	R	H	T	403	REH	523	A5	34	0.77
61515G3	4188S-1-2	12.0	R	H	T	403	REH	523	A5	34	0.77
61587A1	4240S-2-1	20.0	R	H	T	440	REH	570	A5	27	0.77
61589J4	4250S-1-1	20.0	R	H	T	424	REH	568	A5	28	0.75
61591F6	4271S-1-2	15.0	R	H	T	461	REH	576	A5	25	0.80
61591F2	4282S-2-1	15.0	R	H	T	468	REH	586	A5	28	0.80
61589C4	4291S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D4	4292S-1-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D4	4292S-1-2	20.0	R	H	T	430	REH	569	A5	28	0.76

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Thickness mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield MPa (C11)	Yield type	UTS Rm MPa (C12)	Elong. type	Elongation % (C13)	Yield/UTS
61589D4	4292S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D4	4292S-2-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D1	4295S-1-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D1	4295S-1-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D1	4295S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D1	4295S-2-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589C2	4301S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589C2	4301S-2-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D2	4302S-1-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D2	4302S-1-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D2	4302S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589D2	4302S-2-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61585J4	4305S-1-1	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J4	4305S-2-1	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J2	4368S-1-1	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J2	4368S-1-2	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J2	4368S-2-1	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J2	4368S-2-2	20.0	R	H	T	409	R02	550	A5	24	0.74
61586B3	4369S-2-1	20.0	R	H	T	421	REH	557	A5	25	0.76
61586B3	4369S-2-2	20.0	R	H	T	421	REH	557	A5	25	0.76
61585J1	4378S-2-1	20.0	R	H	T	409	R02	550	A5	24	0.74
61585J1	4378S-2-2	20.0	R	H	T	409	R02	550	A5	24	0.74
61586B2	4379S-1-1	20.0	R	H	T	422	R02	558	A5	28	0.76
61586B2	4379S-2-1	20.0	R	H	T	422	R02	558	A5	28	0.76
61588H3	4394S-1-2	20.0	R	H	T	450	R02	572	A5	28	0.79

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Thickness mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield MPa (C11)	Yield type	UTS Rm MPa (C12)	Elong. type	Elongation % (C13)	Yield/UTS
61588H1	4404S-2-1	20.0	R	H	T	444	REH	565	A5	23	0.79
61588H1	4404S-2-2	20.0	R	H	T	444	REH	565	A5	23	0.79
61589B2	4414S-1-1	20.0	R	H	T	424	REH	568	A5	28	0.75
61589B2	4414S-1-2	20.0	R	H	T	424	REH	568	A5	28	0.75
61589B4	4433S-1-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589B4	4433S-1-2	20.0	R	H	T	424	REH	568	A5	28	0.75
61589B4	4433S-2-1	20.0	R	H	T	430	REH	569	A5	28	0.76
61589B4	4433S-2-2	20.0	R	H	T	430	REH	569	A5	28	0.76
61589B1	4434S-2-1	20.0	R	H	T	424	REH	568	A5	28	0.75
61589B1	4434S-2-2	20.0	R	H	T	424	REH	568	A5	28	0.75
61588D1	4441S-1-1	20.0	R	H	T	444	REH	565	A5	23	0.79
61588D1	4441S-1-2	20.0	R	H	T	444	REH	565	A5	23	0.79
61588D1	4441S-2-1	20.0	R	H	T	444	REH	565	A5	23	0.79
61588D1	4441S-2-2	20.0	R	H	T	444	REH	565	A5	23	0.79
61585E4	4528S-1-1	15.0	R	H	T	464	REH	583	A5	30	0.80
61585E4	4528S-1-2	15.0	R	H	T	464	REH	583	A5	30	0.80
61585E4	4528S-1-3	15.0	R	H	T	464	REH	583	A5	30	0.80
61586A4	4529S-1-1	15.0	R	H	T	454	REH	563	A5	30	0.81
61586A4	4529S-1-2	15.0	R	H	T	454	REH	563	A5	30	0.81
61586A4	4529S-2-1	15.0	R	H	T	454	REH	563	A5	30	0.81
61586A4	4529S-2-2	15.0	R	H	T	454	REH	563	A5	30	0.81
61586F2	4538S-1-1	20.0	R	H	T	422	R02	558	A5	28	0.76
61586F2	4538S-2-1	20.0	R	H	T	422	R02	558	A5	28	0.76
61586F2	4538S-2-2	20.0	R	H	T	422	R02	558	A5	28	0.76
61591I1	4589S-1-1	20.0	R	H	T	375	R02	542	A5	31	0.69

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Thickness mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield MPa (C11)	Yield type	UTS Rm MPa (C12)	Elong. type	Elongation % (C13)	Yield/UTS
61591I1	4589S-1-2	20.0	R	H	T	375	R02	542	A5	31	0.69
61591I1	4589S-2-1	20.0	R	H	T	375	R02	542	A5	31	0.69
61591I1	4589S-2-2	20.0	R	H	T	375	R02	542	A5	31	0.69
61592I2	4628S-1-1	20.0	R	H	T	429	REH	558	A5	25	0.77
61592I2	4628S-1-2	20.0	R	H	T	429	REH	558	A5	25	0.77
61592I2	4628S-2-1	20.0	R	H	T	429	REH	558	A5	25	0.77
61592I2	4628S-2-2	20.0	R	H	T	429	REH	558	A5	25	0.77
61592I1	4629S-1-1	20.0	R	H	T	450	REH	571	A5	25	0.79
61592I1	4629S-1-2	20.0	R	H	T	450	REH	571	A5	25	0.79
61592I1	4629S-2-1	20.0	R	H	T	450	REH	571	A5	25	0.79
61592I1	4629S-2-2	20.0	R	H	T	450	REH	571	A5	25	0.79
61591I3	4639S-1-1	20.0	R	H	T	375	R02	542	A5	31	0.69
61591I3	4639S-1-2	20.0	R	H	T	375	R02	542	A5	31	0.69
61591I3	4639S-2-1	20.0	R	H	T	375	R02	542	A5	31	0.69
61591I3	4639S-2-2	20.0	R	H	T	375	R02	542	A5	31	0.69
61588E1	5127S-2-1	25.0	R	H	T	444	REH	565	A5	23	0.79
61590E4	5430S-1-1	20.0	R	H	T	440	REH	558	A5	27	0.79
61590E4	5430S-2-1	20.0	R	H	T	440	REH	558	A5	27	0.79
61590E4	5430S-2-2	20.0	R	H	T	440	REH	558	A5	27	0.79
61652B4	7155S-1-1	15.0	R	H	T	437	REH	554	A5	32	0.79
61652B4	7155S-1-2	15.0	R	H	T	437	REH	554	A5	32	0.79
61293J2	9145S-1-1	10.0	R	H	T	446	REH	554	A5	36	0.81
61303K2	9265S-1-1	10.0	R	H	T	480	REH	569	A5	33	0.84

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Thickness mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield MPa (C11)	Yield type	UTS Rm MPa (C12)	Elong. type	Elongation % (C13)	Yield/UTS

Supplementary Information (C99)
Loc.: (C01) H = head, T = tail
Dir.: (C02) T = transversal, L = longitudinal
Shape: (C10) Ø = round, R = rectangular
Original gauge length: 200 mm

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Position (C01)	Notch (C40)	Shape (C41)	Loc. (C01)	Dir. (C02)	Temp. °C (C03)	SV J (C42)	SV J (C42)	SV J (C42)	AV J (C43)
61498D5	2613S-1-2	1	CV	10x10	H	L	-20	134	151	159	148
61497B4	3263S-2-1	1	CV	10x10	H	L	-20	161	187	172	173
61515B3	3274S-1-1	1	CV	10x10	H	L	-20	157	171	152	160
61515B3	3274S-1-2	1	CV	10x10	H	L	-20	157	171	152	160
61515B3	3274S-2-1	1	CV	10x10	H	L	-20	157	171	152	160
61515B3	3274S-2-2	1	CV	10x10	H	L	-20	157	171	152	160
61489H6	3393S-1-1	1	CV	10x10	H	L	-20	159	195	174	176
61489H6	3393S-1-2	1	CV	10x10	H	L	-20	159	195	174	176
61489H6	3393S-2-1	1	CV	10x10	H	L	-20	159	195	174	176
61489H6	3393S-2-2	1	CV	10x10	H	L	-20	159	195	174	176
61489I2	3484S-1-1	1	CV	10x10	H	L	-20	159	195	174	176
61489I2	3484S-1-2	1	CV	10x10	H	L	-20	159	195	174	176
61489I2	3484S-2-1	1	CV	10x10	H	L	-20	159	195	174	176
61489I2	3484S-2-2	1	CV	10x10	H	L	-20	159	195	174	176
61489I1	3486S-2-1	1	CV	10x10	H	L	-20	159	195	174	176
61489I1	3486S-2-2	1	CV	10x10	H	L	-20	159	195	174	176
61515G3	4188S-1-1	1	CV	10x10	H	L	-20	157	171	152	160
61515G3	4188S-1-2	1	CV	10x10	H	L	-20	157	171	152	160
61587A1	4240S-2-1	1	CV	10x10	H	L	-20	181	197	173	184
61589J4	4250S-1-1	1	CV	10x10	H	L	-20	158	188	211	186
61591F6	4271S-1-2	1	CV	10x10	H	L	-20	214	213	225	217
61591F2	4282S-2-1	1	CV	10x10	H	L	-20	176	183	193	184
61589C4	4291S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D4	4292S-1-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D4	4292S-1-2	1	CV	10x10	H	L	-20	244	192	81	172

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Position (C01)	Notch (C40)	Shape (C41)	Loc. (C01)	Dir. (C02)	Temp. °C (C03)	SV J (C42)	SV J (C42)	SV J (C42)	AV J (C43)
61589D4	4292S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D4	4292S-2-2	1	CV	10x10	H	L	-20	244	192	81	172
61589D1	4295S-1-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D1	4295S-1-2	1	CV	10x10	H	L	-20	244	192	81	172
61589D1	4295S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D1	4295S-2-2	1	CV	10x10	H	L	-20	244	192	81	172
61589C2	4301S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589C2	4301S-2-2	1	CV	10x10	H	L	-20	244	192	81	172
61589D2	4302S-1-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D2	4302S-1-2	1	CV	10x10	H	L	-20	244	192	81	172
61589D2	4302S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589D2	4302S-2-2	1	CV	10x10	H	L	-20	244	192	81	172
61585J4	4305S-1-1	1	CV	10x10	H	L	-20	174	162	173	170
61585J4	4305S-2-1	1	CV	10x10	H	L	-20	174	162	173	170
61585J2	4368S-1-1	1	CV	10x10	H	L	-20	174	162	173	170
61585J2	4368S-1-2	1	CV	10x10	H	L	-20	174	162	173	170
61585J2	4368S-2-1	1	CV	10x10	H	L	-20	174	162	173	170
61585J2	4368S-2-2	1	CV	10x10	H	L	-20	174	162	173	170
61586B3	4369S-2-1	1	CV	10x10	H	L	-20	199	207	151	186
61586B3	4369S-2-2	1	CV	10x10	H	L	-20	199	207	151	186
61585J1	4378S-2-1	1	CV	10x10	H	L	-20	174	162	173	170
61585J1	4378S-2-2	1	CV	10x10	H	L	-20	174	162	173	170
61586B2	4379S-1-1	1	CV	10x10	H	L	-20	191	222	231	215
61586B2	4379S-2-1	1	CV	10x10	H	L	-20	191	222	231	215
61588H3	4394S-1-2	1	CV	10x10	H	L	-20	161	138	159	153

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Position (C01)	Notch (C40)	Shape (C41)	Loc. (C01)	Dir. (C02)	Temp. °C (C03)	SV J (C42)	SV J (C42)	SV J (C42)	AV J (C43)
61588H1	4404S-2-1	1	CV	10x10	H	L	-20	202	214	183	200
61588H1	4404S-2-2	1	CV	10x10	H	L	-20	202	214	183	200
61589B2	4414S-1-1	1	CV	10x10	H	L	-20	158	188	211	186
61589B2	4414S-1-2	1	CV	10x10	H	L	-20	158	188	211	186
61589B4	4433S-1-1	1	CV	10x10	H	L	-20	244	192	81	172
61589B4	4433S-1-2	1	CV	10x10	H	L	-20	158	188	211	186
61589B4	4433S-2-1	1	CV	10x10	H	L	-20	244	192	81	172
61589B4	4433S-2-2	1	CV	10x10	H	L	-20	244	192	81	172
61589B1	4434S-2-1	1	CV	10x10	H	L	-20	158	188	211	186
61589B1	4434S-2-2	1	CV	10x10	H	L	-20	158	188	211	186
61588D1	4441S-1-1	1	CV	10x10	H	L	-20	202	214	183	200
61588D1	4441S-1-2	1	CV	10x10	H	L	-20	202	214	183	200
61588D1	4441S-2-1	1	CV	10x10	H	L	-20	202	214	183	200
61588D1	4441S-2-2	1	CV	10x10	H	L	-20	202	214	183	200
61585E4	4528S-1-1	1	CV	10x10	H	L	-20	120	120	114	118
61585E4	4528S-1-2	1	CV	10x10	H	L	-20	120	120	114	118
61585E4	4528S-1-3	1	CV	10x10	H	L	-20	120	120	114	118
61586A4	4529S-1-1	1	CV	10x10	H	L	-20	224	214	236	225
61586A4	4529S-1-2	1	CV	10x10	H	L	-20	224	214	236	225
61586A4	4529S-2-1	1	CV	10x10	H	L	-20	224	214	236	225
61586A4	4529S-2-2	1	CV	10x10	H	L	-20	224	214	236	225
61586F2	4538S-1-1	1	CV	10x10	H	L	-20	191	222	231	215
61586F2	4538S-2-1	1	CV	10x10	H	L	-20	191	222	231	215
61586F2	4538S-2-2	1	CV	10x10	H	L	-20	191	222	231	215
61591I1	4589S-1-1	1	CV	10x10	H	L	-20	138	184	193	172

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Position (C01)	Notch (C40)	Shape (C41)	Loc. (C01)	Dir. (C02)	Temp. °C (C03)	SV J (C42)	SV J (C42)	SV J (C42)	AV J (C43)
61591I1	4589S-1-2	1	CV	10x10	H	L	-20	138	184	193	172
61591I1	4589S-2-1	1	CV	10x10	H	L	-20	138	184	193	172
61591I1	4589S-2-2	1	CV	10x10	H	L	-20	138	184	193	172
61592I2	4628S-1-1	1	CV	10x10	H	L	-20	138	131	124	131
61592I2	4628S-1-2	1	CV	10x10	H	L	-20	138	131	124	131
61592I2	4628S-2-1	1	CV	10x10	H	L	-20	138	131	124	131
61592I2	4628S-2-2	1	CV	10x10	H	L	-20	138	131	124	131
61592I1	4629S-1-1	1	CV	10x10	H	L	-20	147	143	150	147
61592I1	4629S-1-2	1	CV	10x10	H	L	-20	147	143	150	147
61592I1	4629S-2-1	1	CV	10x10	H	L	-20	147	143	150	147
61592I1	4629S-2-2	1	CV	10x10	H	L	-20	147	143	150	147
61591I3	4639S-1-1	1	CV	10x10	H	L	-20	138	184	193	172
61591I3	4639S-1-2	1	CV	10x10	H	L	-20	138	184	193	172
61591I3	4639S-2-1	1	CV	10x10	H	L	-20	138	184	193	172
61591I3	4639S-2-2	1	CV	10x10	H	L	-20	138	184	193	172
61588E1	5127S-2-1	1	CV	10x10	H	L	-20	202	214	183	200
61590E4	5430S-1-1	1	CV	10x10	H	L	-20	221	214	230	222
61590E4	5430S-2-1	1	CV	10x10	H	L	-20	221	214	230	222
61590E4	5430S-2-2	1	CV	10x10	H	L	-20	221	214	230	222
61652B4	7155S-1-1	1	CV	10x10	H	L	-20	243	224	225	231
61652B4	7155S-1-2	1	CV	10x10	H	L	-20	243	224	225	231
61293J2	9145S-1-1	1	CV	7.5x10	H	L	-20	173	160	154	162
61303K2	9265S-1-1	1	CV	7.5x10	H	L	-20	182	175	182	180

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab (B07)	Plate ID (B06)	Position (C01)	Notch (C40)	Shape (C41)	Loc. (C01)	Dir. (C02)	Temp. °C (C03)	SV J (C42)	SV J (C42)	SV J (C42)	AV J (C43)

Supplementary Information (C99)
Position: (C01) 1 = surface, 2 = middle, 3 = 1/3 of thickness, 4 = 1/4 of thickness
Notch: (C40) CU = Charpy U-notch, CV = Charpy V-notch, CVA = Charpy V-notch (ASTM)
Loc.: (C01) H = head, T = tail
Dir.: (C02) T = transversal, L = longitudinal

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

NLMK Europe – Plate

Inspection Certificate (A02)

EN 10204:2004/3.1

Date of creation: (Z02) 28.06.2022

Certificate No.: (A03) **146010/2**

Our order No.: (A08) 2386131 **Your order No.:** (A07) P097977 **Order registration date:** 01.04.2022 **Date of dispatch:** 28.06.2022 B

We hereby certify that the material has been made and tested in accordance with the mentioned specification(s).
Certified according to Construction Products Regulations (305/2011/EU) by TÜV NORD Systems GmbH (Notified Body Reg. No. 0045).
For Declaration of Performance please see www.DanSteel.dk and DoP number 010CPR2013-07-01.

CE

TÜV-NORD 0045-CPR-0554
Year of initial inspection: 2005
Intended use: Welded, bolted and riveted structures.

Our products are Cobalt, Gold, Mercury free and are free of radioactive substances and do not exceed the clearing limit value of 100 Bg/kg, which guarantees the compliance with limit values given in the Radiation Protection Ordinance (StrlSchV) for the unrestricted clearance of solid material (StrlSchV Annex III, Section 5) for ferrous nuclides.
Manufactured in Denmark

NLMK DanSteel (A01)
Havnevej 33
DK - 3300 Frederiksværk

(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Information description

acc. to EN 10168

A Commercial transactions and parties involved

A01 Manufacturer's works
A02 Type of inspection document
A03 Document number
A04 Manufacturer's mark
A05 Originator of the inspection document
A06 Customer consignee
A07 Purchaser's order number and, where applicable, item number
A08 Manufacturer's works order number
A09 Customer article number
A10 to A99 Supplementary information

B Description of Products

B01 Product
B02 Steel designation
B03 Any supplementary requirements
B04 Product delivery condition
B05 Reference (heat) treatment of samples
B06 Marking of the product
B07 Identification of the product
B08 Number of pieces
B09 to B11 Product dimensions
B12 Theoretical mass
B13 Actual mass
B14 to B99 Supplementary information

C Inspection

C00 Identification of the sample
C01 Location of the sample
C02 Direction of the test pieces
C03 Test temperature
C04 to C09 Supplementary information
C10 Shape of the test piece
C11 Yield or proof strength
C12 Tensile strength
C13 Elongation after fracture
C14 to C29 Supplementary information
C30 Method of test
C31 Individual values
C32 Mean value
C33 to C39 Supplementary information
C40 Type of test piece
C41 Width of test piece
C42 Individual values
C43 Mean value
C44 to C49 Supplementary information
C50 to C69 Supplementary information
C70 Steelmaking process
C71 to C92 Chemical composition
C93 to C99 Supplementary information

D Other tests

D01 Marking and identification, surface appearance, shape and dimensional properties
D02 to D50 Non-destructive tests
D51 to D99 Supplementary information

Z Validation

Z01 Statement of compliance
Z02 Date of issue and validation
Z03 Stamp of the inspection representative
Z04 CE marking
Z05 to Z99 Supplementary information