



Europe – Plate

# Inspection Certificate

(A02)

EN 10204:2004/3.1

Date of creation: (Z02)

29.11.2021

Certificate No.: (A03) 135521/1

Our order No.: (A08) 1369471

Your order No.: (A07) P093151

Order registration date: 27.08.2021

Date of dispatch: 29.11.2021 B

## Material requirements and customer information

Product: (A03) Plate

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

Surface tolerance: EN 10163-2 B3

Delivery condition: (B04) Furnace normalized (N)

Length tolerance: EN 10029 Table 3

Customer name and address (A06)

Certificate address

Width tolerance: EN 10029 Table 2

4102

4102001

Thickness tolerance: EN 10029 Class A

BE Group Oy AB

certificates@begroup.fi;

Flatness tolerance: EN 10029 Table 4 Class N

BOX 54

Finland

15101 LAHTI

Finland

Surface tolerance: EN 10163-2 B3

Finland

Finland

Length tolerance: EN 10029 Table 3

CERTIFICATES@BEGROUP.FI

## Supplementary information: (C04)

Fully Killed and Fine Grain

Plates <= 25mm are Normalised at 900°C for 3 minutes.

Plates > 25mm are Normalised at 900°C for 5 minutes.

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 (B99)	Customer remark
60010B2	8128H	8	60.0	2450	8500	1	9 809	S355K2+N	Head	P093151
60010C3	8285H	8	60.0	2450	8500	1	9 809	S355K2+N	Head	P093151
						2	19 618			



(A01)

(A04)



Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Z. Swish



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## 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.								0.020						
	max.	0.22	1.60	0.55	0.025	0.025	0.400	0.300	0.080	0.100	0.060	0.100	0.050	0.0120	0.0008
60010	0.18	1.49	0.23	0.013	0.003	0.026	0.011	0.046	0.004	0.037	0.049	0.003	0.001	0.0073	0.0004

Heat No. (B07) CEV Remark (C70)

Set values: min. max. 0.47

60010 0.44

### 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



DanSteel

Havnvej 33  
DK - 3300 Fredrikssøværk

(A01)



(A04)

Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Z. Swish



Europe – Plate

# Inspection Certificate

(A02)

EN 10204:2004/3.1

Date of creation: (Z02)

29.11.2021

Certificate No.: (A03)

135521/1

Our order No.: (A08) 1369471

Your order No.: (A07) P093151

Order registration date: 27.08.2021

Date of dispatch: 29.11.2021 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 (C10) mm	Shape (C10)	Loc. (C01)	Dir. (C02)	Yield (C11) MPa	Yield type	UTS Rm (C12) MPa	Elong. type	Elongation % (C13)	Yield/UTS
60010B2	8128H-1-1	60.0	R	H	T	358	REH	508	A5	30	0.70
60010C3	8285H-1-1	60.0	R	H	T	358	REH	508	A5	30	0.70

### 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

## 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 (C42) J	SV (C42) J	AV (C43) J
60010B2	8128H-1-1	1	CV	10x10	H	L	-20	191	234	221
60010C3	8285H-1-1	1	CV	10x10	H	L	-20	191	234	221

### 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



(A01)

(A04)



Inspection representative NLMK DanSteel A/S (A05)

Zibrandt Greisen

Z. Swish



Europe – Plate

# Inspection Certificate <sup>(A02)</sup>

EN 10204:2004/3.1

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Date of creation: <sup>(Z02)</sup> 29.11.2021  
Certificate No.: <sup>(A03)</sup> 135521/1

**Our order No.:** <sup>(A08)</sup> 1369471    **Your order No.:** <sup>(A07)</sup> P093151    **Order registration date:** 27.08.2021    **Date of dispatch:** 29.11.2021    **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](http://www.DanSteel.dk) and DoP number 010CPR2013-07-01.



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 II, Section 5) for ferrous nuclides.  
Manufactured in Denmark



**DanSteel** <sup>(A01)</sup>  
Havnvej 33  
DK - 3300 Fredrikssøværk



Inspection representative NLMK DanSteel A/S <sup>(A05)</sup>  
Zibrandt Greisen    *Z. Svendsen*

## 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	