

EN 10 204-3.1 (2004)

A 16982 -003

12.02.2020

Tilaja Purchaser
TIBNOR OY
NIINISTÖNKATU 7
05800 HYVINKÄÄ FINLAND

Vastaanottaja Consignee
TIBNOR OY
TUOTTAJANTIE 49
60100 SEINÄJOKI FINLAND
Asiakkaan merkki Shipping mark

Päivämäärä Date
13.02.2020

Tilaus nro Order No.
4501180298

Tilausvahvistus Order Confirmation
16982

Valmistajan merkki
Mark of the Manufacturer



Todistus Certificate
31

Laivaus Shipping

Laatumerkintä Quality Marking
S235J2 N

Tarkastajan leima
Stamp of Inspector

Mxx

Toimitustyyppi Delivery type
PART DELIVERY

Sulatus nro levy nro Cast No. Plate No.
XXXXX XXX XX XXX

Vastaanottajan leima
Stamp of Surveyor

Muut leimaukset
Other Stamps

Tuote Product
HEAVY PLATES
Laji Grade
S235J2+N EN 10025-2:2019
Laatuselvitys Quality Specifications
STEEL FOR GENERAL STRUCTURAL PURPOSES

Toleranssit Tolerances
EN 10029:2010 CLASS A

Tekniset vaatimukset ja/tai viralliset määräykset Technical terms of Delivery and/or Official Regulations

Positio Item	Mitat mm Dimensions mm	Merkki Marke	Kpl Pcs	Paino kg Weight kg	Sulatus levy nro Cast plate No	SP nro SP No	UT	MT
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HOT ROLLED STEEL PLATES

SURFACE CONDITION EN 10 163-2:2005 CLASS A1

140	12.00 X 2450	X	12050	4501180298	B001.A07481	STD	2	5668	48718	045	045
140	12.00 X 2450	X	12050				2	5668	48718	049	045
			*	4				11336			

Raah Steel Works

Täten todistamme, että toimitus on tilausvahvistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order confirmation.

Testaus ja tarkastus Testing and Inspection

Minna Valkama

MINNA VALKAMA

Valtuutettu tarkastaja Authorized inspection representative

Yhtiön nimi Company Name: SSAB Europe Oy
Kotipaikka Registered Office: HÄMEENLINNA

Osoite Address: PL 93, P.O Box 93
FIN-92101 RAAHE, FINLAND

Puhelin Telephone: 020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

EN 10 204-3.1 (2004)

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Valmistajan merkki
Mark of the Manufacturer



Todistus Certificate
31

Laivaus Shipping

Laatumerkintä Quality Marking
S420ML

Tarkastajan leima
Stamp of Inspector

Mxx

Toimitustyyppi Delivery type
PART DELIVERY

Sulatus nro levy nro Cast No. Plate No.
XXXXX XXX XX XXX

Vastaanottajan leima
Stamp of Surveyor

Muut leimaukset
Other Stamps

Tuote Product
HEAVY PLATES
Laji Grade
S420ML EN 10025-4:2019
Laatuselvitys Quality Specifications
WELDABLE FINE GRAIN STRUCTURAL STEEL

Toleranssit Tolerances
EN 10029:2010 CLASS A

Tekniset vaatimukset ja/tai viralliset määräykset Technical terms of Delivery and/or Official Regulations

Positio Item	Mitat mm Dimensions mm	Merkki Marke	Kpl Pcs	Paino kg Weight kg	Sulatus levy nro Cast plate No	SP nro SP No	UT	MT
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HOT ROLLED STEEL PLATES

SURFACE CONDITION EN 10 163-2:2005 CLASS A3

120	20.00 X 2450	X	12000	4501180298	B001.A07371	STD	2	9408	49467	021	021
120	20.00 X 2450	X	12000				2	9408	49467	023	023
			*	4	18816						
			**	8	30152						
			***	8	30152						

Raah Steel Works

Täten todistamme, että toimitus on tilausvahvistuksen mukainen.
We hereby certify that the material described above has been tested and complies with the terms of the order confirmation.

Testaus ja tarkastus Testing and Inspection

Minna Valkama

MINNA VALKAMA

Valtuutettu tarkastaja Authorized inspection representative

Yhtiön nimi Company Name: SSAB Europe Oy
Kotipaikka Registered Office: HÄMEENLINNA

Osoite Address: PL 93, P.O Box 93
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Y-tunnus Business ID: 2389445-7

Sulatus nro Cast No Schmelzen Nr. No de coulén № Плавки	Koe nro Test No Prüf Nr. Essai No № Пробы	Positio Item Pos. Poste Поз.	Cekv Ceq Caq Cég Cekv	Analyysi % Chemical composition % Chemisch Zusammensetzung % Composition Chimique % Анализ плавки % (*=ppm)	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	Päivämäärä Date Datum Date Дата 13.02.2020	TPE
49467		120	.21		.054	.31	0.85	.012	.004	.035	.044	.009	.003	.011	0.05	0.04	.004	.004	.0003		

CEQ=C+Mn/6+(Cr+M0+V)/5+(Ni+Cu)/15

Raahe Steel Works

Testaus ja tarkastus Testing and Inspection Испытание и контроль качества
Prüfung und Kontrolle Essais et Contrôle

Steel manufactured and supplied by Raahe Steel Works is free from radiation.
Производимая на металлургическом комбинате «Raahe Steel Works» и поставляемая
заказчику сталь не излучают радиации.

MINNA VALKAMA

Valtuutettu tarkastaja Authorized inspection representative Уполномоченный инспектор
Sachverständiger Inspecteur autorisé

Yhtiön nimi Company Name: SSAB Europe Oy Osoite Address: PL 93, P.O Box 93
Kotipaikka Registered Office: HÄMEENLINNA FIN-92101 RAAHE, FINLAND

Puhelin Telephone: 020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

Declaration of performance
(according to EU No 305/2011 and 574/2014)

DoP id. P004_02

Hot rolled Plate product S235J2 / 1.0117
according to
EN 10025-2:2019
for bolted, welded and riveted structures.

SSAB
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101 20 Stockholm
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Website: ssab.com

TÜV NORD Systems GmbH & Co. KG
Grosse Bahnstrasse 31
D-22525 Hamburg
Germany
T: +49 40 8557 2368

Assessment system and verification for constancy
of performance
System 2+

The performance of the product identified in this document is
in conformity with the set of declared performance. This declaration of performance
is issued in accordance with Regulations (EU) No 305/2011 and 574/2014,
under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Jarkko Matkala
Vice President, hot rolled plate and strip products,
SSAB Europe Oy, Raahе Steelworks
Raahе 2015-06-09



05

0045-CPR-0573

EN 10025-1:2004

Dop id: P004_02 EN 10025-2:2019		Performance		Harmonized technical specification
S235J2	Thickness	Tolerances on the nominal thickness (acc. EN 10029 Class A unless otherwise stated)		EN 10025-1:2004
Tolerances on dimensions and shapes.	Nominal thickness (mm)	Lower	Upper	
		$3 \leq t < 5$	-0,3	
	$5 \leq t < 8$	-0,4	+0,8	
	$8 \leq t < 15$	-0,5	+0,9	
	$15 \leq t < 25$	-0,6	+1,0	
	$25 \leq t < 40$	-0,7	+1,3	
	$40 \leq t < 80$	-0,9	+1,7	
	$80 \leq t < 150$	-1,1	+2,1	
$150 \leq t < 250$	-1,2	+2,4		
Width	Nominal thickness	Tolerances		
		Lower	Upper	
	$t < 40$	0	+20	
	$40 \leq t < 150$	0	+25	
	$150 \leq t \leq 400$	0	+30	
Tolerances on width for plates with untrimmed edges (NK) shall be the subject of agreement between the manufacturer and purchaser at the time of enquiry and order				
Length	Nominal length	Tolerances		
	l	Lower	Upper	
	$l < 4000$	0	+20	
	$4000 \leq l < 6000$	0	+30	
	$6000 \leq l < 8000$	0	+40	
	$8000 \leq l < 10\ 000$	0	+50	
	$10\ 000 \leq l < 15\ 000$	0	+75	
	$15\ 000 \leq l \leq 20\ 000$	0	+100	
Tolerances on plates with nominal length $l > 20\ 000$ mm shall be agreed at the time of enquiry and order.				
Flatness	Nominal thickness t	Measuring length		
	t	1000	2000	
	$3 \leq t < 5$	9	14	
	$5 \leq t < 8$	8	12	
	$8 \leq t < 15$	7	11	
	$15 \leq t < 25$	7	10	
	$25 \leq t < 40$	6	9	
	$40 \leq t < 250$	5	8	

Yield strength	thickness mm	min (Mpa)	
	≤ 16	235	
	$> 16 \leq 40$	225	
	$> 40 \leq 63$	215	
	$> 63 \leq 80$	215	
	$> 80 \leq 100$	215	
	$> 100 \leq 150$	195	
	$> 150 \leq 200$	185	
$> 200 \leq 250$	175		
Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 100	360	510
	$> 100 \leq 150$	350	500
	$> 150 \leq 250$	340	490
Elongation	thickness mm	min %	
	$\geq 3 \leq 40$	24	
	$> 40 \leq 63$	23	
	$> 63 \leq 100$	22	
	$> 100 \leq 150$	22	
	$> 150 \leq 250$	21	
Impact strength	thickness mm	temperature, °C	min. energy, J
	≤ 150	-20	27
	$> 150 \leq 250$	-20	27
Weldability CEV	thickness mm	CEV max %	
	≤ 40	0,35	
	$> 40 \leq 150$	0,38	
	$> 150 \leq 250$	0,40	
Durability (chemical composition)	element	Value	
	C, max	0,17	
	Mn, max	1,40	
	P, max	0.025	
	S, max	0.025	
	N, max		
	Cu, max	0,55	
	Ni, max	0,42	
	Cr, max	0,29	
	Mo, max	0,11	

Declaration of performance
(according to EU No 305/2011 and 574/2014)

DoP id. P025_02

Hot rolled Plate product S420ML / 1.8836
according to
EN 10025-4:2019
for bolted, welded and riveted structures.

SSAB
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Assessment system and verification for constancy
of performance
System 2+

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in conformity with the set of declared performance. This declaration of performance
is issued in accordance with Regulations (EU) No 305/2011 and 574/2014,
under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Jarkko Matkala
Vice President, hot rolled plate and strip products,
SSAB Europe Oy, Raahе Steelworks
Raahе 2015-06-09



05

0045-CPR-0573
EN 10025-1:2004

Dop id: P025_02 EN 10025-4:2019		Performance		Harmonized technical specification
S420ML	Thickness	Tolerances on the nominal thickness (acc. EN 10029 Class A unless otherwise stated)		EN 10025-1:2004
Tolerances on dimensions and shapes.	Nominal thickness (mm)	Lower	Upper	
	$3 \leq t < 5$	-0,3	+0,7	
	$5 \leq t < 8$	-0,4	+0,8	
	$8 \leq t < 15$	-0,5	+0,9	
	$15 \leq t < 25$	-0,6	+1,0	
	$25 \leq t < 40$	-0,7	+1,3	
	$40 \leq t < 80$	-0,9	+1,7	
	$80 \leq t < 150$	-1,1	+2,1	
$150 \leq t < 250$	-1,2	+2,4		
Width	Nominal thickness	Tolerances		
		Lower	Upper	
	$t < 40$	0	+20	
	$40 \leq t < 150$	0	+25	
	$150 \leq t \leq 400$	0	+30	
Tolerances on width for plates with untrimmed edges (NK) shall be the subject of agreement between the manufacturer and purchaser at the time of enquiry and order				
Length	Nominal length	Tolerances		
	l	Lower	Upper	
	$l < 4000$	0	+20	
	$4000 \leq l < 6000$	0	+30	
	$6000 \leq l < 8000$	0	+40	
	$8000 \leq l < 10\ 000$	0	+50	
	$10\ 000 \leq l < 15\ 000$	0	+75	
	$15\ 000 \leq l \leq 20\ 000$	0	+100	
Tolerances on plates with nominal length $l > 20\ 000$ mm shall be agreed at the time of enquiry and order.				
Flatness	Nominal thickness t	Measuring length		
	t	1000	2000	
	$3 \leq t < 5$	9	14	
	$5 \leq t < 8$	8	12	
	$8 \leq t < 15$	7	11	
	$15 \leq t < 25$	7	10	
	$25 \leq t < 40$	6	9	
	$40 \leq t < 250$	5	8	

Yield strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 16	420	
	$> 16 \leq 40$	400	
	$> 40 \leq 63$	390	
	$> 63 \leq 80$	380	
	$> 80 \leq 100$	370	
	$> 100 \leq 120$	365	
Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 40	520	680
	$> 40 \leq 63$	500	660
	$> 63 \leq 80$	480	640
	$> 80 \leq 100$	470	630
	$> 100 \leq 120$	460	620
Elongation	thickness mm	min %	
		19	
Impact strength	thickness mm	temperature, °C	min. energy, J
		-50	27
Weldability CEV	thickness mm	CEV max %	
	≤ 16	0.43	
	$> 16 \leq 40$	0.45	
	$> 40 \leq 63$	0.46	
	$> 63 \leq 120$	0.47	
	$> 120 \leq 150$	0.47	
Durability (chemical composition)	element	Value	
	C, max	0.16	
	Si, max	0.50	
	Mn, max	1.70	
	P, max	0.025	
	S, max	0.020	
	Nb, max	0.05	
	V, max	0.12	
	Al, min	0.02	
	Ti, max	0.05	
	Cr, max	0.30	
	Ni, max	0.80	
	Mo, max	0.20	
	Cu, max	0.55	
N, max	0.025		