

EN 10 204-3.1 (2004)

A 15724 -001

21.02.2023

Tilaja Purchaser
BE GROUP OY AB
PL 54
15101 LAHTI FINLAND
Tilaus nro Order No.
P103561

Tilausvahvistus Order Confirmation
15724

Vastaanottaja Consignee
BE GROUP OY AB
METSÄKIVENTIE 4
62100 LAPUA FINLAND
Asiakkaan merkki Shipping mark
P103561

Päivämäärä Date
22.02.2023
Valmistajan merkki
Mark of the Manufacturer



Todistus Certificate
31

Laatumerkintä Quality Marking
S420ML

Tarkastajan leima
Stamp of Inspector

Mxx

Toimitustyyppi Delivery type
TOTAL 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
Laatuseelvitys 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	Turvamerkki Safetymark
HOT ROLLED STEEL PLATES									
FLATNESS MAX 6MM/M. .SURFACE CONDITION EN 10 163-2:2005 CLASS B3									
001	15.00 X 2000	X 6000 2101466250	4	5760	20377 411	411			
001	15.00 X 2000	X 6000	3	4320	20377 412	412			
FLATNESS MAX 6MM/M. .SURFACE CONDITION EN 10 163-2:2005 CLASS B3									
002	20.00 X 2000	X 6000 2101466500	3	5760	20377 413	413			
			***	10	15840				

Raahe 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: HAMEENLINNA

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

Puhelin Telephone: 020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

Tilaja Purchaser BE GROUP OY AB PL 54 15101 LAHTI FINLAND Tilaus nro Order No. P103561	Vastaanottaja Consignee BE GROUP OY AB METSÄKIVENTIE 4 62100 LAPUA FINLAND Asiakkaan merkki Shipping mark P103561	Päivämäärä Date 22.02.2023 Valmistajan merkki Mark of the Manufacturer	
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Laji Grade: **S420ML** Lisävaatimukset Additional requirements: _____
 Laatuselvitys Quality Specifications: **WELDABLE FINE GRAIN STRUCTURAL STEEL**
 Jatkuvaavalettua happiterästä Oxygen steel, continuous casting
 Fully killed, Fine grain practiced

Pos. Item	Sulatus, k. erä nro Cast. test No	T-tila Cond	Vetokoe K2	Tensile test										Taivutuskoe Bend test		Huom Nb	Päästö Tempering °C							
				°C	RP02 MPa	RT05 MPa	REL MPa	REH MPa	1 RM MPa	2	3	A % 50	80	200	RE / RM			RM * A5	1 RAZ %	2	3	Keskiarvo Average	K5	D = X t
001	20377 411	TM	11	504						604														
001	20377 412	TM	11	522						625														
002	20377 413	TM	11	499						600														

K2: 11=TOP,TRANSV.

TM=THERMOMECH. TREATED

Pos. Item	Sulatus k. erä nro Cast. test No	Iskukoe K3	Impact test						FA %			LE (mm)			*Specimen Unbroken					Erikoiskokeet		Special tests		Huom Nb	Päästö Tempering °C			
			°C	1	2	3	Keskiarvo Average	W (mm)	1	2	3	Keskiarvo Average	1	2	3	Keskiarvo Average	K4	°C	1	2	Keskiarvo Average							
001	20377 411	111	-050	357	317	298	324																					
001	20377 412	111	-050	323	307	311	314																					
002	20377 413	111	-050	288	284	279	284																					

K3: 111=CH-V/ISO-V(J),10X10, TOP, LONGIT, KV600

Raabe Steel Works

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Testaus ja tarkastus Testing and Inspection



MINNA VALKAMA

Valtuutettu tarkastaja Authorized inspection representative

Sulatus nro Cast No Schmelzen Nr. No de coulén	Koe nro Test No Prüf Nr. Essai No	Positio Item Pos. Poste	Cekv Ceq Câq Cég Cekv	Analyysi % Chemical composition % Chemisch Zusammensetzung % Composition Chimique % (*-ppm)																Päivämäärä Date Datum Date		
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B	22.02.2023		AMH	
20377		001	.21	.055	.30	0.85	.009	.002	.029	.043	.009	.003	.011	0.04	0.03	.004	.004	.0003				
20377		002	.21	.055	.30	0.85	.009	.002	.029	.043	.009	.003	.011	0.04	0.03	.004	.004	.0003				

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

Raahe Steel Works

Testaus ja tarkastus
Prüfung und Kontrolle

Testing and Inspection
Essais et Contrôle

SSAB Europe Oy, Raahe Steel Works testing laboratories T002 and T010 are accredited by the FINAS accreditation service, accreditation requirement SFS-EN ISO/IEC 17025.

Steel manufactured and supplied by Raahe Steel Works is free from radiation.



MINNA VALKAMA

Valtuutettu tarkastaja
Sachverständiger

Authorized inspection representative
Inspector autorisé

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Y-tunnus Business ID: 2389445-7

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.

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TÜV NORD Systems Gmbh & Co. KG
Grosse Bahnstrasse 31
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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, Raahe Steelworks
Raahe 2015-06-09



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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		

Declaration of performance
(according to UK CPR 2020 No 1359)

DoP id. P025_02

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

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of performance
System 2+

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Signed for and on behalf of the manufacturer by:



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

UK CA

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0038/CPR/PRJ11100341405/ 01

EN 10025-1:2004

Dop id: P025_02 EN 10025-4:2019		Performance		Harmonized technical specification
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