

EN 10 204-3.1 (2004)

Tilaja Purchaser BE GROUP OY AB PL 54 15101 LAHTI FINLAND Tilaus nro Order No. P108489	Vastaanottaja Consignee BE GROUP OY AB VANHANRADANKATU 42 15520 LAHTI FINLAND Asiakkaan merkki Shipping mark P108489	Päivämäärä Date 02.11.2023 Valmistajan merkki Mark of the Manufacturer
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Tuotus Certificate 31	Laatumerkintä Quality Marking S235JR+AR	Tarkastajan leima Stamp of Inspector Vastaanottajan leima Stamp of Surveyor Muut leimaukset Other Stamps
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Toimitustyyppi Delivery type
REST DELIVERY

Tuote Product
CUT LENGTHS
Laji Grade
S235JR+AR/TEAR PLATE EN 10025-2:2019
Laatuselvitys Quality Specifications
HOT ROLLED TEAR PLATES

Tekniset vaatimukset jãrjeltä viralliset määrãykseset Technical terms of Delivery and/or Official Regulations
DIN 59220/00-SEL014E-79/SFS-EN10363:2016

Positio Item	Mitat mm Dimensions mm	Merkki Mark	Kpl Pcs	Paino kg Weight kg	Sulatus levy nro Cast plate No	SP nro SP No	UT UT	MT MT	Turvamerkki Safety mark
H.R. TEAR PLATES IN BUNDLES CUT LENGTHS MILL EDGES									
GALVANIZING CLASS 1 (SI MAX 0.03%, SI+2.5P <= 0.09%)									
002	3.00 X 1500 X	3000 2102203900	108	12495	42830	021	041		
002	3.00 X 1500 X	3000	86	9950	42830	041	041		

*** 194 22445

Raahe Steel Works

Testaus ja tarkastus Testing and Inspection

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 99
FI-32101 RAAHE, FINLAND

Puhelin Telephone: 020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

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

Tilaaaja Purchaser
BE GROUP OY AB
PL 54
15101 LAHTI FINLAND
Tilaus nro Order No.
P108489

Vastaanottaja Consignee
BE GROUP OY AB
VANHANRADANKATU 42
15520 LAHTI FINLAND
Asiakkaan merkki Shipping mark
P108489

Päivämäärä Date
02.11.2023

Valmistajan merkki
Mark of the Manufacturer



Laji Grade
S235JR+AR/TEAR PLATE
Laatuseilytyy Quality Specifications
HOT ROLLED TEAR PLATES

Lisävaatimukset Additional requirements

Jatkuvavalettua 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			RE / RM	RM * A5	RAZ %			Keskiarvo Average	Tajutuskoet Bend test	Huom Nb	Päästö Tempering °C	
				RP02 MPa	RT05 MPa	REL MPa			RFH MPa	1	2					3
002	42830	041	AR	31					50	80	200					
									313	407						
																32

AR=AS ROLLED

Raahe Steel Works

Testaus ja tarkastus Testing and Inspection

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Valtuutettu tarkastaja Authorized inspection representative
Yhtiön nimi Company Name: SSAB Europe Oy
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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.

Sulatus nro Cast No Schmelzen Nr. No de coulén	Koe nro Test No Prüf Nr. Essai No	Positio Item Pos. Poste	Cekv Ceq Cdq Ceq	Analyysi % Chemisch Zusammensetzung % Composition Chimique % (*-ppm)													Päivämäärä Date Datum Date 02.11.2023	AMT
				C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO		
42830	002	19	.075	.01	0.62	.009	.006	.031	.000	.009	.015	.012	0.05	0.04	.004	.004	.000	.000

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

Raahe Steel Works

Testaus ja tarkastus
Prüfung und Kontrolle

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

MINNA VALKAMA

Vaihtoehtoinen tarkastaja
Sachverständiger

Authorized inspection representative
Inspector autorisé

Yrityksen nimi Company Name: SSAB Europe Oy
Kotipaikka Registered Office: HAMPEENLINNA

Osoite Address: PL 93, P.O. Box 99
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Puhelin Telephone: 020 5911
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Y-tunnus Business ID: 2389445-7

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

DoP id. S002_02

Hot rolled strip product S235JR / 1.0038
according to
EN 10025-2:2019
for bolted, welded and riveted structures.

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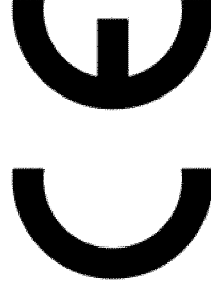
Assessment system and verification for constancy
of performance
System 2+

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, Raahе Steelworks
Raahе 2015-06-09



05

0045-CPR-0573
EN 10025-1:2004

Dop id: S002_02 EN 10025-2:2019	Performance				Harmonized technical specification
5235JR	Tolerances for nominal width w				
Tolerances on dimensions and shape. Thickness	Thickness				
	Nominal thickness (mm)	w ≤ 1200	1200 < w ≤ 1500	1500 < w ≤ 1800	w > 1800
	t ≤ 2,00	± 0,17	± 0,19	± 0,21	
	2,00 < t ≤ 2,50	± 0,18	± 0,21	± 0,23	± 0,25
	2,50 < t ≤ 3,00	± 0,20	± 0,22	± 0,24	± 0,26
	3,00 < t ≤ 4,00	± 0,22	± 0,24	± 0,26	± 0,27
	4,00 < t ≤ 5,00	± 0,24	± 0,26	± 0,28	± 0,29
	5,00 < t ≤ 6,00	± 0,26	± 0,28	± 0,29	± 0,31
	6,00 < t ≤ 8,00	± 0,29	± 0,30	± 0,31	± 0,35
	8,00 < t ≤ 10,00	± 0,32	± 0,33	± 0,34	± 0,40
	10,00 < t ≤ 12,50	± 0,35	± 0,36	± 0,37	± 0,43
	12,50 < t ≤ 15,00	± 0,37	± 0,38	± 0,40	± 0,46
	15,00 < t ≤ 25,00	± 0,40	± 0,42	± 0,45	± 0,50
Width	Nominal width w	Mill edges		Trimmed edges*	
		Lower	Upper	Lower	Upper
	w ≤ 1 200	0	+20	0	+3
	1 200 < w ≤ 1 850	0	+20	0	+5
	w > 1 850	0	+25	0	+6
* Tolerances for trimmed edges apply to products with nominal thickness t ≤ 10 mm; for nominal thickness t > 10 mm the upper tolerances shall be agreed at the time of enquiry and order.					
Length	Nominal length l	Tolerances			
		Lower	Upper		
	l < 2 000	0	+10		
	2 000 ≤ l < 8 000	0	+0,005 x l		
	l ≥ 8 000	0	+40		
Flatness	Nominal thickness t	Tolerances			
		w ≤ 1 200	1 200 < w ≤ 1 500	w > 1 500	
	t ≤ 2,00	18	20	25	
	2,00 < t ≤ 25	15	18	23	

Yield strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 16	235	-
	> 16 ≤ 25	225	-
Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	< 3	360	510
	≥ 3 ≤ 25	360	510
Elongation	thickness mm	min %	
	> 1.5 ≤ 2	17	
	> 2 ≤ 2.5	18	
	> 2.5 < 3	19	
	≥ 3 ≤ 25	24	
Impact strength	thickness mm	temperature, °C	min. energy, J
	≤ 25	20	27
Weldability CEV	thickness mm	CEV	max %
	≤ 25		0.35
Durability (chemical composition)	element	max %	
	C	0.17	
	Mn	1.40	
	P	0.035	
	S	0.035	
	N	0.012	
	Cu	0.55	
Ni	0.42		
Cr	0.29		
Mo	0.11		

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

DoP id. S002_02

Hot rolled strip product S235JR / 1.0038
according to
EN 10025-2:2019
for bolted, welded and riveted structures.

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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

**UK
CA****05**

0038/CPR/PRJ1 100341405/ 01
EN 10025-1:2004

Dop id: S002_02 EN 10025-2:2019	Performance				Harmonized technical specification
5235JR	Tolerances for nominal width w				
Tolerances on dimensions and shape. Thickness	Thickness				
	Nominal thickness (mm)	w ≤ 1200	1200 < w ≤ 1500	1500 < w ≤ 1800	w > 1800
	t ≤ 2,00	± 0,17	± 0,19	± 0,21	
	2,00 < t ≤ 2,50	± 0,18	± 0,21	± 0,23	± 0,25
	2,50 < t ≤ 3,00	± 0,20	± 0,22	± 0,24	± 0,26
	3,00 < t ≤ 4,00	± 0,22	± 0,24	± 0,26	± 0,27
	4,00 < t ≤ 5,00	± 0,24	± 0,26	± 0,28	± 0,29
	5,00 < t ≤ 6,00	± 0,26	± 0,28	± 0,29	± 0,31
	6,00 < t ≤ 8,00	± 0,29	± 0,30	± 0,31	± 0,35
	8,00 < t ≤ 10,00	± 0,32	± 0,33	± 0,34	± 0,40
	10,00 < t ≤ 12,50	± 0,35	± 0,36	± 0,37	± 0,43
	12,50 < t ≤ 15,00	± 0,37	± 0,38	± 0,40	± 0,46
	15,00 < t ≤ 25,00	± 0,40	± 0,42	± 0,45	± 0,50

Width	Tolerances		
	Mill edges	Trimmed edges*	
Nominal width w	Lower	Upper	Upper
w ≤ 1 200	0	+20	0
1 200 < w ≤ 1 850	0	+20	0
w > 1 850	0	+25	0
* Tolerances for trimmed edges apply to products with nominal thickness t ≤ 10 mm; for nominal thickness t > 10 mm the upper tolerances shall be agreed at the time of enquiry and order.			

Length	Tolerances		
	Lower	Upper	
Nominal length l	0	+10	
l < 2 000	0	+10	
2 000 ≤ l < 8 000	0	+0,005 x l	
l ≥ 8 000	0	+40	

Flatness	Tolerances		
	w ≤ 1 200	1 200 < w ≤ 1 500	w > 1500
Nominal thickness t	18	20	25
t ≤ 2,00	18	20	25
2,00 < t ≤ 25	15	18	23

Yield strength	min (Mpa)		max (Mpa)	
	thickness mm	min (Mpa)	max (Mpa)	min (Mpa)
	≤ 16	235		-
	> 16 ≤ 25	225		-

Tensile strength	min (Mpa)		max (Mpa)	
	thickness mm	min (Mpa)	max (Mpa)	min (Mpa)
	< 3	360		510
	≥ 3 ≤ 25	360		510

Elongation	min %	
	thickness mm	min %
	> 1.5 ≤ 2	17
	> 2 ≤ 2.5	18
	> 2.5 < 3	19
	≥ 3 ≤ 25	24

Impact strength	temperature, °C		min. energy, J	
	thickness mm	temperature, °C	min. energy, J	min. energy, J
	≤ 25	20		27

Weldability CEV	CEV max %	
	thickness mm	CEV max %
	≤ 25	0.35

Durability (chemical composition)	max %	
	element	max %
	C	0.17
	Mn	1.40
	P	0.035
	S	0.035
	N	0.012
	Cu	0.55
	Ni	0.42
	Cr	0.29
Mo	0.11	