

EN 10 204-3.1 (2004)

Tilaja Purchaser KONTINO OY AB PL 27 01301 VANTAA FINLAND	Vastaanottaja Consignee OY KONTINO AB HAKINTIE 6 01380 VANTAA FINLAND	Päivämäärä Date 17.05.2018
Tilaus nro Order No. 111806	Tilauksen vahvistus Order Confirmation 25801	Vaimistajan merkki Mark of the Manufacturer 
Todistus Certificate 31	Laivaus Shipping Laatumerkintä Quality Marking S355ML	Tarkastajan leima Stamp of Inspector Mxx

Toimitustyyppi Delivery type  
**PART DELIVERY**

Tuote Product  
HEAVY PLATES

Laji Grade  
S355ML EN 10025-4:2004

Laatuvaihtuvuus Quality Specifications  
WELDABLE FINE GRAIN STRUCTURAL STEEL

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

Toleranssit Tolerances  
EN 10029:2010 CLASS A

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
<b>HOT ROLLED STEEL PLATES</b>								
<b>PACKED, IN BUNDLES</b>								
<b>CEV MAX 0.38%, IMPACT TEST AT -50 DEG.C MIN 40J, SI MAX 0.03%</b>								
<b>SURFACE CONDITION EN 10 163-2:2005 CLASS A3</b>								
030	30.00 X 1500 X 3000	XR355308	10	10800	16151	031	031	
030	30.00 X 1500 X 3000		8	8640	16151	032	031	
			***	18	19440			

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

**Raabe Steel Works**  
Testaus ja tarkastus Testing and Inspection

Tämän 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.

*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  
FIN-32101 RAAHE, FINLAND

Puhelin Telephone: 020 5911  
+358 20 5911

Y-tunnus Business ID: 2389445-7

EN 10 204-3.1 (2004)

Tilaja Purchaser KONTINO OY AB PL 27 01301 VANTAA FINLAND	Vastaanottaja Consignee OY KONTINO AB HAKINTIE 6 01380 VANTAA FINLAND	Päivämäärä Date 17.05.2018	MLK
Tilaus nro Order No. 1111806	Tilauksen vahvistus Order Confirmation 25801	Vaimistajan merkki Mark of the Manufacturer	
Laji Grade S355ML	Lisävaatimukset Additional requirements		

Laatuuselyitys Quality Specifications  
**WELDABLE FINE GRAIN STRUCTURAL STEEL**

Pos. Item	Sulatus k era nro Cast. test No	T-tila Cond	Vetokoe Tensile test				REH MPa	REH MPa	REH MPa	RM MPa	A %	REH /RM	RM * A5	RAZ %	Keskiarvo Average	Keskianvo Average	K5	D = X t	Huom Nb	Päästö Tempering °C
			K2	*C	RP02 MPa	RT05 MPa														
030	16151	031	TM	51					487	542	24					51	1.0			
K2: 51=BOTTOM,TRANSV. K5: 51=BENDING TEST																				
Pos. Item	Sulatus k era nro Cast. test No	Isukoe Impact test	K3	°C	W	Sitkeämurtuma Ductile fracture			Erikoiskokeet Special tests	K4 °C	Keskiarvo Average	Keskiarvo Average	Huom Nb	Päästö Tempering °C						
						1	2	3												
030	16151	031	151	-050	221	230	239	230												
K3: 151=CH-V(ISO-V),10X10,BOTTOM,LONGIT,KV600																				

TM=THERMOMECH. TREATED

Jatkuvalettua happiterästä  
Oxygen steel, continuous casting  
Fully killed, Fine grain practice

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ANALYYSITODISTUS ANALYSIS CERTIFICATE  
 ANALYSEBESCHEINIGUNG COMPOSITIO CHIMIQUE CERTIFICAT  
 СЕРТИФИКАТ АНАЛИЗА

3/3  
 A 25801 -001 A  
 16.05.2018

Sulatus nro Cast No Schmelzen Nr. № Плавки	Koe nro Test No Prüf Nr. Essai No № Проб	Positio Item Pos. Poste Поз.	Cekiv Ceq Cäg Cekv	Analysi % Chemical composition % Chemisch Zusammensetzung % Composition Chimique % Анализа сплава % (*-ppm)	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B
16151	030	.37	.092	.01	1.51	.010	.004	.038	.048	.050	.003	.021	0.04	0.04	.005	.003	.0001		

Päivämäärä Date Datum Date Дата  
 17.05.2018

MLK

CEQ=C+MN/6+(CR+MO+V)/5+(NI+CU)/15

Raabe Steel Works

Testaus ja tarkastus  
 Prüfung und Kontrolle

Testing and inspection  
 Essais et Contrôle

Испытание и контроль качества

*Minna Valkama*

MINNA VALKAMA  
 Valiutettu tarkastaja  
 Sachverständiger

Authorized inspection representative  
 Inspecteur autorisé

Уполномоченный инспектор

Yhtiön nimi Company Name:  
 Kotipaikka Registered Office:

SSAB Europe Oy  
 HAMENLINNA

Osoite Address:  
 Puheain Telephone:

FIN-32101 RAAHE, FINLAND  
 020 5911  
 +358 20 5911

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

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

DoP id. P023\_01

Hot rolled Plate product S355ML / 1.8834  
according to  
EN 10025-4:2004  
for bolted, welded and riveted structures.

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Grosse Bahnstrasse 31  
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Germany  
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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

# CE

05

0045-CPR-0573  
EN 10025-1:2004

Dop id: P023_01		Harmonized technical specification	
S355ML	Thickness	Performance Tolerances on the nominal thickness (acc. EN 10029 Class A unless otherwise stated)	
	Nominal thickness (mm)	Lower Upper	
Thickness	3 ≤ t < 5	-0,3 +0,7	
	5 ≤ t < 8	-0,4 +0,8	
	8 ≤ t < 15	-0,5 +0,9	
	15 ≤ t < 25	-0,6 +1,0	
	25 ≤ t < 40	-0,7 +1,3	
	40 ≤ t < 80	-0,9 +1,7	
Tolerances on dimensions and shapes.	80 ≤ t < 150	-1,1 +2,1	
	150 ≤ t < 250	-1,2 +2,4	
Width	Nominal thickness	Tolerances	
	t < 40	Lower Upper	
	40 ≤ t < 150	0 +20	
Length	150 ≤ t ≤ 400	0 +25	
	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	+30	
	Nominal length l	Lower Upper	
Flatness	l < 4000	0 +20	
	4000 ≤ l < 6000	0 +30	
	6000 ≤ l < 8000	0 +40	
	8000 ≤ l < 10 000	0 +50	
	10 000 ≤ l < 15 000	0 +75	
	15 000 ≤ l ≤ 20 000	0 +100	
Tolerances on plates with nominal length l > 20 000 mm shall be agreed at the time of enquiry and order.			
Nominal thickness t	Measuring length	1000	2000
		3 ≤ t < 5	9 14
		5 ≤ t < 8	8 12
		8 ≤ t < 15	7 11
		15 ≤ t < 25	7 10
		25 ≤ t < 40	6 9
40 ≤ t < 250	5 8		

Yield strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 16	355	
	> 16 ≤ 40	345	
	> 40 ≤ 63	335	
	> 63 ≤ 80	325	
	> 80 ≤ 100	325	
	> 100 ≤ 120	320	
Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 40	470	630
	> 40 ≤ 63	450	610
	> 63 ≤ 80	440	600
	> 80 ≤ 100	440	600
	> 100 ≤ 120	430	590
Elongation	thickness mm	min %	
		22	
Impact strength	thickness mm	temperature, °C	min. energy, J
		-50	27
Weldability CEV	thickness mm	CEV max %	
	≤ 16	0.39	
	> 16 ≤ 40	0.39	
	> 40 ≤ 63	0.40	
	> 63 ≤ 120	0.45	
	> 120 ≤ 150	0.45	
Durability (chemical composition)	element	Value	
	C, max	0.14	
	Si, max	0.50	
	Mn, max	1.60	
	P, max	0.025	
	S, max	0.020	
	Nb, max	0.05	
	V, max	0.10	
	Al, min	0.02	
	Ti, max	0.05	
	Cr, max	0.30	
	Ni, max	0.50	
	Mo, max	0.10	
	Cu, max	0.55	
	N, max	0.015	