



VASTAANOTTOTODISTUS INSPECTION CERTIFICATE

1/6
A 13584 -009
15.07.2019

EN 10 204-3.1 (2004)

Tilaaja Purchaser KONTINO OY AB PL 27 01301 VANTAA FINLAND	Vastaanottaja Consignee OY KONTINO AB HAKINTIE 6 01380 VANTAA FINLAND	Päivämäärä Date 16.07.2019
Tilauksen nro Order No. 112964	Tilauksen vahvistus Order Confirmation 13584	Valmistajan merkki Mark of the Manufacturer
Todistus Certificate 31	Laivaus Shipping 1112964	Tarkastajan leima Stamp of Inspector Mxx
Toimitustyyppi Delivery type PART DELIVERY	Laatuumerkintä Quality Marking LSR 355 ML PLUS	Vastaanottajan leima Stamp of Surveyor
Tuote Product HEAVY PLATES Laji Grade SSAB LASER 355ML PLUS Laatuselitys Quality Specifications HIGH STRENGTH FORMABLE STEEL FOR LASER AND PLASMA CUTTING	Sulatus nro levy nro Cast No. Plate No. XXXX XX XX XX	Muut leimaukset Other Stamps
Positio Item Mitat mm Dimensions mm	Toleranssit Tolerances SSAB TOLERANCE EN 10029, THICKN. 3/4 CL A	Tekniset vaatimukset/taulukon viralliset määräykset Technical terms of Delivery and/or Official Regulations

Merkki Mark

Paino kg Weight kg

Kpl PCS

Sulatus levy nro Cast plate No

SP nro SP No

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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.

Raabe 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: HÄMEENLINNA

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 16.07.2019
Tilaus nro. Order No. 1112964	Tilauksen vahvistus Order Confirmation 13584	Vainstajan merkki Mark of the Manufacturer
Todistus Certificate 31	Laivaus Shipping Laatumerkintä Quality Marking S355K2 N	

Toimitustyyppi Delivery type
PART DELIVERY

Tuote Product
HEAVY PLATES

Laji Grade
S355K2+N EN 10025-2:2004

Laatuselitys Quality Specifications
STEEL FOR GENERAL STRUCTURAL PURPOSES

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

Toleranssit Tolerances
EN 10029:2010 CLASS A

Tarkastajan leima Stamp of Inspector
Vastaanottajan leima Stamp of Surveyor
Muut leimaukset Other Stamps

Tekniset vaatimukset, joihin 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 UT	MT MT
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HOT ROLLED STEEL PLATES								
SI 0.15 - 0.25%, CEV MAX. 0,43%								
SURFACE CONDITION EN 10 163-2:2005 CLASS A3								
040	12.00 X 2000	X	6000	C127				
040	12.00 X 2000	X	6000		3	3456	40057	032 032
040	12.00 X 2000	X	6000		4	4608	40057	033 032
040	12.00 X 2000	X	6000		4	4608	40057	034 032

			*	11	12672			
			**	41	41472			
			***	41	41472			

Raabe Steel Works

Testaus ja tarkastus Testing and Inspection



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Yhtiön nimi Company Name: SSAB Europe Oy

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FIN-02101 ROAHE, FINLAND

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+358 20 5911

Y-tunnus Business ID: 2389445-7

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.

Tilaja Purchaser
KONTINO OY AB
PL 27
01301 VANTAA FINLAND
Tilaus no. Order No.
1112964

Vastaanottaja Consignee
OY KONTINO AB
HAKINTIE 6
01380 VANTAA FINLAND
Asiakkaan merkki Shipping mark
1112964

Päivämäärä Date
16.07.2019
AET
Valmistajan merkki
Mark of the Manufacturer



Laji Grade
SSAB LASER 355ML PLUS

Lisävaatimukset Additional requirements

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

Laatuselitys Quality Specifications

HIGH STRENGTH FORMABLE STEEL FOR LASER AND PLASMA CUTTING

Pos. Item	Sulatus, k. era nro Cast. test No	T-tila Cond	Velokoe Tensile test			REH MPa	REL MPa	RT05 MPa	RPO2 MPa	K2 °C	RM MPa	A %	REH / RM	RM * A5	RAZ %			Keskiarvo Average		Huom Nb	Päästo Tempering °C
			K5	D = Xt	1										2	3	K5	D = Xt			
170	40037	032	TM	51	430	500	26	51	1.0												
170	40039	022	TM	51	438	523	26	51	1.0												
180	40037	051	TM	51	445	510	27	51	1.0												

K2: 51=BOTTOM, TRANSV.
K5: 51=BENDING TEST

TM=THERMOMECH. TREATED

Pos. Item	Sulatus, k. era nro Cast. test No	Iskukoe Impact test	K3 °C	K4 °C	K5 °C	K6 °C	K7 °C	K8 °C	K9 °C	K10 °C	K11 °C	K12 °C	K13 °C	K14 °C	K15 °C	K16 °C	K17 °C	K18 °C	K19 °C	K20 °C	K21 °C	K22 °C	K23 °C	K24 °C	K25 °C	K26 °C	K27 °C	K28 °C	K29 °C	K30 °C	K31 °C	K32 °C	K33 °C	K34 °C	K35 °C	K36 °C	K37 °C	K38 °C	K39 °C	K40 °C	K41 °C	K42 °C	K43 °C	K44 °C	K45 °C	K46 °C	K47 °C	K48 °C	K49 °C	K50 °C	K51 °C	K52 °C	K53 °C	K54 °C	K55 °C	K56 °C	K57 °C	K58 °C	K59 °C	K60 °C	K61 °C	K62 °C	K63 °C	K64 °C	K65 °C	K66 °C	K67 °C	K68 °C	K69 °C	K70 °C	K71 °C	K72 °C	K73 °C	K74 °C	K75 °C	K76 °C	K77 °C	K78 °C	K79 °C	K80 °C	K81 °C	K82 °C	K83 °C	K84 °C	K85 °C	K86 °C	K87 °C	K88 °C	K89 °C	K90 °C	K91 °C	K92 °C	K93 °C	K94 °C	K95 °C	K96 °C	K97 °C	K98 °C	K99 °C	K100 °C	K101 °C	K102 °C	K103 °C	K104 °C	K105 °C	K106 °C	K107 °C	K108 °C	K109 °C	K110 °C	K111 °C	K112 °C	K113 °C	K114 °C	K115 °C	K116 °C	K117 °C	K118 °C	K119 °C	K120 °C	K121 °C	K122 °C	K123 °C	K124 °C	K125 °C	K126 °C	K127 °C	K128 °C	K129 °C	K130 °C	K131 °C	K132 °C	K133 °C	K134 °C	K135 °C	K136 °C	K137 °C	K138 °C	K139 °C	K140 °C	K141 °C	K142 °C	K143 °C	K144 °C	K145 °C	K146 °C	K147 °C	K148 °C	K149 °C	K150 °C	K151 °C	K152 °C	K153 °C	K154 °C	K155 °C	K156 °C	K157 °C	K158 °C	K159 °C	K160 °C	K161 °C	K162 °C	K163 °C	K164 °C	K165 °C	K166 °C	K167 °C	K168 °C	K169 °C	K170 °C	K171 °C	K172 °C	K173 °C	K174 °C	K175 °C	K176 °C	K177 °C	K178 °C	K179 °C	K180 °C	K181 °C	K182 °C	K183 °C	K184 °C	K185 °C	K186 °C	K187 °C	K188 °C	K189 °C	K190 °C	K191 °C	K192 °C	K193 °C	K194 °C	K195 °C	K196 °C	K197 °C	K198 °C	K199 °C	K200 °C	K201 °C	K202 °C	K203 °C	K204 °C	K205 °C	K206 °C	K207 °C	K208 °C	K209 °C	K210 °C	K211 °C	K212 °C	K213 °C	K214 °C	K215 °C	K216 °C	K217 °C	K218 °C	K219 °C	K220 °C	K221 °C	K222 °C	K223 °C	K224 °C	K225 °C	K226 °C	K227 °C	K228 °C	K229 °C	K230 °C	K231 °C	K232 °C	K233 °C	K234 °C	K235 °C	K236 °C	K237 °C	K238 °C	K239 °C	K240 °C	K241 °C	K242 °C	K243 °C	K244 °C	K245 °C	K246 °C	K247 °C	K248 °C	K249 °C	K250 °C	K251 °C	K252 °C	K253 °C	K254 °C	K255 °C	K256 °C	K257 °C	K258 °C	K259 °C	K260 °C	K261 °C	K262 °C	K263 °C	K264 °C	K265 °C	K266 °C	K267 °C	K268 °C	K269 °C	K270 °C	K271 °C	K272 °C	K273 °C	K274 °C	K275 °C	K276 °C	K277 °C	K278 °C	K279 °C	K280 °C	K281 °C	K282 °C	K283 °C	K284 °C	K285 °C	K286 °C	K287 °C	K288 °C	K289 °C	K290 °C	K291 °C	K292 °C	K293 °C	K294 °C	K295 °C	K296 °C	K297 °C	K298 °C	K299 °C	K300 °C	K301 °C	K302 °C	K303 °C	K304 °C	K305 °C	K306 °C	K307 °C	K308 °C	K309 °C	K310 °C	K311 °C	K312 °C	K313 °C	K314 °C	K315 °C	K316 °C	K317 °C	K318 °C	K319 °C	K320 °C	K321 °C	K322 °C	K323 °C	K324 °C	K325 °C	K326 °C	K327 °C	K328 °C	K329 °C	K330 °C	K331 °C	K332 °C	K333 °C	K334 °C	K335 °C	K336 °C	K337 °C	K338 °C	K339 °C	K340 °C	K341 °C	K342 °C	K343 °C	K344 °C	K345 °C	K346 °C	K347 °C	K348 °C	K349 °C	K350 °C	K351 °C	K352 °C	K353 °C	K354 °C	K355 °C	K356 °C	K357 °C	K358 °C	K359 °C	K360 °C	K361 °C	K362 °C	K363 °C	K364 °C	K365 °C	K366 °C	K367 °C	K368 °C	K369 °C	K370 °C	K371 °C	K372 °C	K373 °C	K374 °C	K375 °C	K376 °C	K377 °C	K378 °C	K379 °C	K380 °C	K381 °C	K382 °C	K383 °C	K384 °C	K385 °C	K386 °C	K387 °C	K388 °C	K389 °C	K390 °C	K391 °C	K392 °C	K393 °C	K394 °C	K395 °C	K396 °C	K397 °C	K398 °C	K399 °C	K400 °C	K401 °C	K402 °C	K403 °C	K404 °C	K405 °C	K406 °C	K407 °C	K408 °C	K409 °C	K410 °C	K411 °C	K412 °C	K413 °C	K414 °C	K415 °C	K416 °C	K417 °C	K418 °C	K419 °C	K420 °C	K421 °C	K422 °C	K423 °C	K424 °C	K425 °C	K426 °C	K427 °C	K428 °C	K429 °C	K430 °C	K431 °C	K432 °C	K433 °C	K434 °C	K435 °C	K436 °C	K437 °C	K438 °C	K439 °C	K440 °C	K441 °C	K442 °C	K443 °C	K444 °C	K445 °C	K446 °C	K447 °C	K448 °C	K449 °C	K450 °C	K451 °C	K452 °C	K453 °C	K454 °C	K455 °C	K456 °C	K457 °C	K458 °C	K459 °C	K460 °C	K461 °C	K462 °C	K463 °C	K464 °C	K465 °C	K466 °C	K467 °C	K468 °C	K469 °C	K470 °C	K471 °C	K472 °C	K473 °C	K474 °C	K475 °C	K476 °C	K477 °C	K478 °C	K479 °C	K480 °C	K481 °C	K482 °C	K483 °C	K484 °C	K485 °C	K486 °C	K487 °C	K488 °C	K489 °C	K490 °C	K491 °C	K492 °C	K493 °C	K494 °C	K495 °C	K496 °C	K497 °C	K498 °C	K499 °C	K500 °C	K501 °C	K502 °C	K503 °C	K504 °C	K505 °C	K506 °C	K507 °C	K508 °C	K509 °C	K510 °C	K511 °C	K512 °C	K513 °C	K514 °C	K515 °C	K516 °C	K517 °C	K518 °C	K519 °C	K520 °C	K521 °C	K522 °C	K523 °C	K524 °C	K525 °C	K526 °C	K527 °C	K528 °C	K529 °C	K530 °C	K531 °C	K532 °C	K533 °C	K534 °C	K535 °C	K536 °C	K537 °C	K538 °C	K539 °C	K540 °C	K541 °C	K542 °C	K543 °C	K544 °C	K545 °C	K546 °C	K547 °C	K548 °C	K549 °C	K550 °C	K551 °C	K552 °C	K553 °C	K554 °C	K555 °C	K556 °C	K557 °C	K558 °C	K559 °C	K560 °C	K561 °C	K562 °C	K563 °C	K564 °C	K565 °C	K566 °C	K567 °C	K568 °C	K569 °C	K570 °C	K571 °C	K572 °C	K573 °C	K574 °C	K575 °C	K576 °C	K577 °C	K578 °C	K579 °C	K580 °C	K581 °C	K582 °C	K583 °C	K584 °C	K585 °C	K586 °C	K587 °C	K588 °C	K589 °C	K590 °C	K591 °C	K592 °C	K593 °C	K594 °C	K595 °C	K596 °C	K597 °C	K598 °C	K599 °C	K600 °C	K601 °C	K602 °C	K603 °C	K604 °C	K605 °C	K606 °C	K607 °C	K608 °C	K609 °C	K610 °C	K611 °C	K612 °C	K613 °C	K614 °C	K615 °C	K616 °C	K617 °C	K618 °C	K619 °C	K620 °C	K621 °C	K622 °C	K623 °C	K624 °C	K625 °C	K626 °C	K627 °C	K628 °C	K629 °C	K630 °C	K631 °C	K632 °C	K633 °C	K634 °C	K635 °C	K636 °C
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EN 10 204-3.1 (2004)

Tilaja Purchaser KONTINO OY AB PL 27 01301 VANTAA FINLAND Tilaus no. Order No. 1112964	Vastaanottaja Consignee OY KONTINO AB HAKINTIE 6 01380 VANTAA FINLAND Asiakkaan merkki Shipping mark 1112964	Päivämäärä Date 16.07.2019 Valmistajan merkki Mark of the Manufacturer
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Lisävaatimukset Additional requirements
Jaukuvailettua happiterästä
Oxygen steel, continuous casting
Fully killed, Fine grain practiced

Laatuselitys Quality Specifications STEEL FOR GENERAL STRUCTURAL PURPOSES

Pos. Item	Sulatus, k. erä nro Cast. test No	T-tila Cond	Vetokoe Tensile test			K2	°C	RP02 MPa	RT05 MPa	REL MPa	REH MPa	RM MPa	A %	REH /RM	RM * A5	RAZ %	Keskiarvo Average	Taivutuskoee Bend test		Huom Nb	Paasto Tempering °C	
			K5	D = X t																		
040	40057	032	NR	11									50	200								

Pos. Item	Sulatus, k. erä nro Cast. test No	Isukoe Impact test	K3	°C	1	2	3	Keskiarvo Average	W (mm)	FA %	LE (mm)	Kesk. Keskiarvo Average	K4	°C	1	2	Keskiarvo Average	Huom Nb	Paasto Tempering °C	
																				Enkoiokokeet Special tests
040	40057	032	115	-020	162	159	176	166												

K2: 11=TOP,TRANSV. NR=NORMALIZING ROLLING LE = Poikittainen laajenema Lateral Expansion

Raabe Steel Works
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, FIN-92101 ROAHE, FINLAND
Puhelin Telephone: 020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

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.

ANALYYSITODISTUS ANALYSIS CERTIFICATE ANALYSEBESCHEINIGUNG COMPOSITIO CHIMIQUE CERTIFICAT СЕРТИФИКАТ АНАЛИЗА

5/6
A 13584 -009
15.07.2019

Palvamaara Date Datum Date Дата

16.07.2019

AET

(*-ppm)

Sulatus no Cast No Schmelzen Nr. No de coulée № Плавки	Koe nro Test No Prüf Nr. Essai No № Пробы	Positio Item Pos. Poste № Пробы	Analysä % Chemical composition % Zusammensetzung % Composition Chimique % Анализ пробы %														
			C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B
40037	170	.37	.095	.02	1.50	.009	.003	.040	.043	.045	.001	.013	0.04	0.04	.003	.005	.0003
40039	170	.38	.098	.02	1.53	.008	.003	.031	.045	.051	.001	.015	0.05	0.04	.004	.004	.0002
40037	180	.37	.095	.02	1.50	.009	.003	.040	.043	.045	.001	.013	0.04	0.04	.003	.005	.0003

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

Valtuutettu tarkastaja
Sachverständiger

Authorized inspection representative
Inspector, autorisé

Уполномоченный инспектор

Yhtiön nimi/Company Name:
Kotipaikka/Registered Office:

SSAB Europe Oy
HAMÉENLINNA

Osoite Address:
FIN-32101 RAABE, FINLAND

Puhelin Telephone:
020 5911
+358 20 5911

Y-tunnus Business ID: 2389445-7

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



ANALYYSITODISTUS ANALYSIS CERTIFICATE
ANALYSEBESCHEINIGUNG COMPOSITIO CHIMIQUE CERTIFICAT
СЕРТИФИКАТ АНАЛИЗА

6/6
 A 13584 -009
 15.07.2019

Sulatus nro Cast No Schmelzen Nr. No de coulée № Плавки	Position Item Pos. Poste Поз.	Cekiv Ceq Cag Ceg Cekv	Analysi % Chemical composition % Chemisch Zusammensetzung % Composition Chimique % Анализ плавки % (* -ppm)	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B
40057	040	.41	.152	.20	.142	.007	.012	.032	.035	.005	.002	.022	0.05	0.05	0.05	.009	.004	.0002

Päivämäärä Date Datum Date Дата
 16.07.2019

AET

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

Raabe Steel Works

Testaus ja tarkastus
 Prüfung und Kontrolle

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

Minna

MINNA VALKAMA

Valtuutettu tarkastaja
 Sachverständiger

Authorized inspection representative
 Inspector autorisé

Уполномоченный инспектор

Yhtiön nimi Company Name:
 Korpiaikka Registered Office:

SSAB Europe Oy
 RAAMEENLINNA

Puhelin Telephone:
 +358 20 5911

Y-tunnus Business ID: 2389445-7

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

DoP id. P011_01

Hot rolled Plate product S355K2 / 1.0596
according to
EN 10025-2:2004
for bolted, welded and riveted structures.

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TÜV NORD Systems Gmbh & Co. KG
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D-22525 Hamburg
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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: P011_01		Performance		Harmonized technical specification
		Tolerances on the nominal thickness (acc. EN 10029 Class A unless otherwise stated)		
S355K2	Thickness			EN 10025-1:2004
	Tolerances on dimensions and shapes.			
Thickness	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	
Width	$40 \leq t < 80$	-0,9	+1,7	
	$80 \leq t < 150$	-1,1	+2,1	
	$150 \leq t < 250$	-1,2	+2,4	
	Nominal thickness	Tolerances		
Length		Lower	Upper	
	$t < 40$	0	+20	
	$40 \leq t < 150$	0	+25	
Flatness	$150 \leq t \leq 400$	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			
	Nominal length	Tolerances		
	$l < 4000$	Lower	Upper	
	$4000 \leq l < 6000$	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	355
	$> 16 \leq 40$	345
	$> 40 \leq 63$	335
	$> 63 \leq 80$	325
	$> 80 \leq 100$	315
	$> 100 \leq 150$	295
	$> 150 \leq 200$	285
	$> 200 \leq 250$	275

Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	< 3	510	680
	$\geq 3 \leq 100$	470	630
	$> 100 \leq 150$	450	600
	$> 150 \leq 250$	450	600


Elongation	thickness mm	min %
	$\geq 3 \leq 40$	20
	$> 40 \leq 63$	19
	$> 63 \leq 100$	18
	$> 100 \leq 150$	18
	$> 150 \leq 250$	17

Impact strength	thickness mm	temperature, °C	min. energy, J
	≤ 150	-20	40
	$> 150 \leq 250$	-20	33

Weldability CEV	thickness mm	CEV max %
	≤ 30	0,45
	$> 30 \leq 40$	0,47
	$> 40 \leq 150$	0,47
	$> 150 \leq 250$	0,49

Durability (chemical composition)	element	Max
	C	≤ 30 0,20
	Si	0,55
	Mn	1,60
	P	0,025
	S	0,025
	N	
	Cu	0,55

EN 10 204-3.1 (2004)

Tilaaja Purchaser KONTINO OY AB PL 27 01301 VANTAA FINLAND	Vastaanottaja Consignee OY KONTINO AB HAKINTIE 6 01380 VANTAA FINLAND	Päivämäärä Date 16.07.2019
Tilaus nro Order No. 1112964	Asiakkaan merkki Shipping mark 1112964	Valmistajan merkki Mark of the Manufacturer
Todistus Certificate 31	Laatumerkintä Quality Marking S355ML	
Toimitustyyppi Delivery type PART DELIVERY	Sulatus nro levy nro Cast No. Plate No. XXXXX XXX XX XXX	
Tuote Product HEAVY PLATES	Toleranssit Tolerances SSAB TOLERANCE EN 10029, THICKN. 3/4 CL A	Tarkastajan leima Stamp of Inspector Mxx

Laatumerkintä Quality Marking
S355ML

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

Toleranssit Tolerances
SSAB TOLERANCE EN 10029, THICKN. 3/4 CL A

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

Positio Item
Mitat mm Dimensions mm
Merkki Marke

HOT ROLLED STEEL PLATES
IN BUNDLES

CEV MAX 0.38%, IMPACT TEST AT -50 C MIN 40J, SI MAX 0.03%.
SURFACE CONDITION EN 10 163-2:2005 CLASS A3

170	25.00 X 1500	X	3000	XR355258	10	9000	40037	032	032
170	25.00 X 1500	X	3000		10	9000	40039	032	022
180	30.00 X 1500	X	3000	XR355308	10	10800	40037	051	051

Kpl Pes	Paino kg Weight kg	Sulatus levy nro Cast plate No	SP nro SP No	UT UT	MT MT
30	28800	40037	032		

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.

Raabe Steel Works
Testaus ja tarkastus Testing and Inspection

M. Karam

MINNA VALKAMA
Valtuutettu tarkastaja Authorized inspection representative

Yhtiön nimi Company Name: SSAB Europe Oy
Lähtöpaikka Origin: LAMMELI, FINLAND

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

Tilaaaja Purchaser: KONTINO OY AB
 Vastanottaja Consignee: OY KONTINO AB
 PL 27 HAKINTIE 6
 01301 VANTAA FINLAND
 Tilauksen nro Order No.: 1112964
 Asiakkaan merkki Shipping mark: 1112964
 Tilauksen vahvistus Order Confirmation: 13584
 Päivämäärä Date: 16.07.2019
 Valmistajan merkki Mark of the Manufacturer: AET



Jalkuvaalettua happiterästä
 Oxygen steel, continuous casting
 Fully killed, Fine grain practiced

Lisävaatimukset Additional requirements

WELDABLE FINE GRAIN STRUCTURAL STEEL

Pos. Item	Sulatus, kera nro Cast, test No	T-tila Cond	Vetokoe Tensile test		REH MPa	REL MPa	RT05 MPa	RM ₂ MPa	A %	REH /RM	RM * A5	RAZ %			Tavutuskoee Bend test		Huom Nb	Päästö Tempering °C
			K2 °C	°C								1	2	3	K5	D = X t		
170	40037	032	TM	51	430	500	26	51	1.0			51	1.0					
170	40039	022	TM	51	438	523	26	51	1.0			51	1.0					
180	40037	051	TM	51	445	510	27	51	1.0			51	1.0					

TM=THERMOMECH. TREATED

Pos. Item	Sulatus, kera nro Cast, test No	Iskukoe Impact test	K3 °C	Sulatus, kera nro Cast, test No	K3 °C	FA %			LE (mm)			Erikoiskokeet Special tests			Huom Nb	Päästö Tempering °C	
						W (mm)	1	2	3	Keskiarvo Average	K4 °C	1	2	Keskiarvo Average			
170	40037	032	151	-050	240	231	256	242	1	2	3	1	2	3			
170	40039	022	151	-050	243	231	28	167	1	2	3	1	2	3			
180	40037	051	151	-050	263	285	243	264	1	2	3	1	2	3			

FA = Sitkeämurtuman osuus Shear fracture appearance
 LE = Poikittainen laajenema Lateral Expansion

K3: 151=CH-V/ISO-V(J),10X10,BOTTOM, LONGIT, KV600

Raabe Steel Works

Testaus ja tarkastus Testing and Inspection

Minna Valkama

MINNNA VALKAMA
 Valtuutettu tarkastaja Authorized inspection representative

Yhtiön nimi Company Name: SSAB Europe Oy
 Yhteystiedot Contact information: LUTHEEN MINKA

Osoite Address: PL 93, P.O. Box 93
 FIN-04100 RAABE

Puhelin Telephone: 020 5911
 23590414

Y-lunnus Business ID: 2389445-7

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

Paivämäärä Date Datum Date Date
16.07.2019 AET

Analysi % Chemical composition % Zusammensetzung % Composition Chimique % Анализ пробы % (*=ppm)

Sulatus nro Cast No Schmelzen Nr. No de coulée № Плавки	Positiio Item Post. Poste Поз.	Cekki Ceq Ceq Ceq Ceq
---	--	-----------------------------------

	C	SI	MN	P	S	AL	NB	V	TI	CU	CR	NI	MO	N	B
40037	.095	.02	1.50	.009	.003	.040	.043	.045	.001	.013	0.04	0.04	.003	.005	.0003
40039	.098	.02	1.53	.008	.003	.031	.045	.051	.001	.015	0.05	0.04	.004	.004	.0002
40037	.095	.02	1.50	.009	.003	.040	.043	.045	.001	.013	0.04	0.04	.003	.005	.0003

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

Raabe Steel Works

Testaus ja tarkastus
Prüfung und Kontrolle

Испытание и контроль качества

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

Minna Valkama

MINNA VALKAMA

Valtuutettu tarkastaja
Sachverständiger

Authorized inspection representative
Inspector autorise

Уполномоченный инспектор

Yhtiön nimi Company Name: SSAB Europe Oy

Osoite Address: PL 93, P.O Box 93

Puhelin Telephone: 020 5911

Y-tunnus Business ID: 2389445-7

Dop id: P023_01		Harmonized technical specification
S355ML Tolerances on dimensions and shapes.	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
Width	80 ≤ t < 150	-1,1 +2,1
	150 ≤ t < 250	-1,2 +2,4
Length	Nominal thickness	Tolerances
	t < 40	Lower Upper
	40 ≤ t < 150	0 +20
	150 ≤ t < 400	0 +25
Flatness	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	
	Nominal length l	Tolerances
	l < 4000	Lower Upper
	4000 ≤ l < 6000	0 +20
	6000 ≤ l < 8000	0 +30
	8000 ≤ l < 10 000	0 +40
10 000 ≤ l < 15 000	0 +50	
15 000 ≤ l < 20 000	0 +75	
Tolerances on plates with nominal length l > 20 000 mm shall be agreed at the time of enquiry and order.		+100
Flatness	Nominal thickness t	Measuring length
	t	1000
	3 ≤ t < 5	9
	5 ≤ t < 8	8
	8 ≤ t < 15	7
	15 ≤ t < 25	7
25 ≤ t < 40	6	
40 ≤ t < 250	5	
EN 10025-1:2004		

Yield strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 16	355	
	> 16 ≤ 40	345	
	> 40 ≤ 63	335	
	> 63 ≤ 80	325	
Tensile strength	thickness mm	min (Mpa)	max (Mpa)
	≤ 40	470	630
	> 40 ≤ 63	450	610
	> 63 ≤ 80	440	600
	> 80 ≤ 100	440	600
Elongation	thickness mm	min %	
	> 100 ≤ 120	430	590
Impact strength	thickness mm	temperature, °C	min. energy, J
	> 100 ≤ 120	-50	27
Weldability CEV	thickness mm	CEV max %	
	≤ 16	0.39	
	> 16 ≤ 40	0.39	
	> 40 ≤ 63	0.40	
	> 63 ≤ 120	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		

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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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

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0045-CPR-0573
EN 10025-1:2004