





A01 Tata Steel IJmuiden BV Nenckebachstraat 1 1951 JZ Velsen Noord Postbus 10000 1970 CA IJmuiden The Netherlands Telephone: 0251-492110 Company Trade Register 34040331 E-mail : info.testing@tatasteel.com		A07.A09 Reference ST#34866		A02 Inspection certificate 3.1, EN10204. B01.B02.B03.B04.B15																																																	
A03 Doc. nr 2016063087 00		Hot rolled dry, Coil, S355MC, YMPRESS WG S:01-2010. Mill edges. Impact test. Suitable for: Cutting into sheet.		A04 Tolerance EN 10051 : 2010 (E) (Width tolerance +20/-0 mm) Dev.Tol. (Thickness tolerance +0.24/-0.24 mm). PRODUCE AND TEST ACCORDING TO EN 10149-2																																																	
A06 Customer/Consignee OY ALUSTEEL AB TELAKKATIE 4 23500 UUSIKAUPUNKI FINLAND		A08 Order nr. 50893 E		A11 Dispatch note 55581		A10 Transport ROBIJN																																															
B09.B10.B11 Dimensions 1500 mm X 20 mm		TENSILE TEST												HARDNESS		IMPACT TEST AND OTHER TESTS																																					
B07 PROD.-IDENT		B15 MASS kg		B08 NR		B07 CAST NR.		C01 CD1/CD2		C10 B05		C05 Temp °C		C11 ReH MPa		C11 ReL MPa		C11 Rp MPa		C12 Rm MPa		C13 A %		C13 A %		C16 ReH/Rm %		C17 r-value		C18 n-value		C32		CD1/CD2		B05		C41 mm		C40.C60.C65		C05 Temp °C		C44		C42 ind.		C42 ind.		C43 mean		C95 ASTM E-112	
3066068		28300		1		S6363		32 1L P		+ 20		361						515		30.4				70						1L P		0		10.0		ISO-V		- 20 2		253 303		307 288											
3066069		28280		1		"		32 1L P		+ 20		366						518		28.5				71						1L P		0		10.0		ISO-V		- 20 2		299 315		296 303											
3066070		28300		1		"		32 1L P		+ 20		375						506		30.2				74						1L P		0		10.0		ISO-V		- 20 2		313 308		332 318											
3066071		28240		1		"		32 1L P		+ 20		366						510		28.5				72						1L P		0		10.0		ISO-V		- 20 2		286 292		229 269											
3066072		28320		1		"		32 1L P		+ 20		372						515		29.4				72						1L P		0		10.0		ISO-V		- 20 2		300 302		310 304											
3066073		28300		1		"		32 1L P		+ 20		362						520		27.8				70						1L P		0		10.0		ISO-V		- 20 2		276 254		274 268											
3119079		28180		1		S7012		32 1L P		+ 20		371						509		29.3				73						1L P		0		10.0		ISO-V		- 20 2		324 324		318 322											
3119080		28180		1		"		32 1L P		+ 20		381						509		28.5				75						1L P		0		10.0		ISO-V		- 20 2		264 260		311 278											
3119078		28180		1		S7014		32 1L P		+ 20		382						511		27.7				75						1L P		0		10.0		ISO-V		- 20 2		260 286		263 270											
3119081		28180		1		"		32 1L P		+ 20		391						516		26.6				76						1L P		0		10.0		ISO-V		- 20 2		284 309		315 303											
SUBTOTAL		282460		10																																																	
C71-C92 CHEMICAL COMPOSITION in %																												C44 1: J/cm ² 2: J 3: Later. exp. (mm)		4: Contraction (%) 5: Shear area (%)																							
B07 CAST NR.		B07 PROD.-IDENT		C71 C		C72 Mn		C73 P		C74 S		C75 Si		C76 Al		C77 Cu		C78 Cr		C79 Ni		C80 Mo		C81 Nb		C82 V		C83 N		C84 B		C85 C-eq		C86 Al-ZO		C87 Sn		C88 Ti		C89 C-eq		C01 1=Top 2=Edge 3=Bottom		C01 1=Surface 2=Centre 3=Surface		C02 L=Longitudinal I=Transverse Z=in Thickn dir		C10 P=prismatic C=cylindrical					
S6363				.064		1.311		.014		.004		0.013		0.030		.011		0.014		0.017		.003		.033		.003		.0040		.0000		0.029		.002		.001		.288															
S7012				.060		1.322		.012		.003		0.016		0.032		.009		0.022		0.016		.003		.034		.003		.0036		.0000		0.030		.002		.002		.288															
S7014				.066		1.347		.015		.003		0.015		0.032		.011		0.023		0.016		.002		.032		.003		.0035		.0000		0.031		.002		.002		.298															
C-eq1: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15																																																					
C70 STEELMAKING PROCESS: B0																																																					
Page 1 of 2																																																					
Z05 Stamp of the expert :																																																					
Z02 Tata Steel IJmuiden BV Test House, IJmuiden SIMON BRAAM MANAGER TESTING 																																																					
Z01 We certify that the delivery complies with the order prescriptions.																																																					
IJMUIDEN, 12 JUNI 2016																																																					

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		A08 Order nr. 50893 E	

B09.B10.B11 Dimensions				C10-C29 TENSILE TEST														HARD-NESS	C40..C60..C65 IMPACT TEST AND OTHER TESTS																	
1500 mm X		20 mm																																		
B07 PROD.-IDENT	B15 MASS kg	B08 NR	B07 CAST NR.	C01	C01/C02	C10	B05	C03 Temp °C	C11 ReH MPa	C11 ReL MPa	C11 Rp MPa	C12 Rm MPa	C13 A %	C13 A %	C16 ReH/Rm	C17 r-value	C18 n-value	C32	C01/C02	C10	B05	C41 mm	C40..C60..C65		C03 Temp °C	C44	C42 ind.	C42 ind.	C42 ind.	C43 mean	C95 ASTM E-112					
3119082	28180	1	S7014	32	1L	P		+ 20	360			506	30.7		71				1L	P	0	10.0	ISO-V		- 20	2	30	193	45	89						
3119083	28200	1	"	32	1L	P		+ 20	374			509	28.2		73				1L	P	0	10.0	ISO-V		- 20	2	320	267	307	298						
3119076	28120	1	S7016	32	1L	P		+ 20	389			520	27.0		75				1L	P	0	10.0	ISO-V		- 20	2	233	316	264	271						
3119077	28180	1	"	32	1L	P		+ 20	383			517	27.5		74				1L	P	0	10.0	ISO-V		- 20	2	310	308	307	308						
3121136	28180	1	S7018	32	1L	P		+ 20	372			508	28.9		73				1L	P	0	10.0	ISO-V		- 20	2	153	167	277	199						
3119075	28240	1	S7020	32	1L	P		+ 20	379			513	27.8		74				1L	P	0	10.0	ISO-V		- 20	2	342	327	322	330						
3119089	28220	1	"	32	1L	P		+ 20	365			504	28.9		72				1L	P	0	10.0	ISO-V		- 20	2	317	328	335	327						
3119084	28200	1	S7022	32	1L	P		+ 20	370			508	29.0		73				1L	P	0	10.0	ISO-V		- 20	2	319	316	256	297						
3119087	28260	1	"	32	1L	P		+ 20	386			514	28.3		75				1L	P	0	10.0	ISO-V		- 20	2	316	272	319	302						
3119088	28240	1	"	32	1L	P		+ 20	376			510	29.4		74				1L	P	0	10.0	ISO-V		- 20	2	309	323	320	317						
3119085	28460	1	S7024	32	1L	P		+ 20	381			508	29.1		75				1L	P	0	10.0	ISO-V		- 20	2	356	362	345	354						
3119086	28220	1	"	32	1L	P		+ 20	375			509	30.3		74				1L	P	0	10.0	ISO-V		- 20	2	322	306	307	312						
TOTAL	621160	22																																		

C71-C92 CHEMICAL COMPOSITION in %																				C44					
B07 CAST NR.	B07 PROD.-IDENT	C71 C	C72 Mn	C73 P	C74 S	C75 Si	C76 Al	C77 Cu	C78 Cr	C79 Ni	C80 Mo	C81 Nb	C82 V	C83 N	C84 B	C85 C-eq	C86 Al-ZO	C87 Sn	C88 Ti	C89 C-eql	1: J/cm ² 2: J 3: Later. exp. (mm) 4: Contraction (%) 5: Shear area (%)				
S7014		.066	1.347	.015	.003	0.015	0.032	.011	0.023	0.016	.002	.032	.003	.0035	.0000		0.031	.002	.002	.29	C01 1=Top 2=Edge 3=Bottom C02 L=Longitudinal 1=Surface 2=Centre 3=Surface C10 P=prismatical C=Cylindrical				
S7016		.069	1.340	.016	.002	0.019	0.033	.011	0.021	0.017	.003	.035	.004	.0037	.0000		0.031	.003	.002	.300	C-eql: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15				
S7018		.061	1.335	.014	.004	0.015	0.040	.010	0.018	0.017	.003	.035	.003	.0037	.0000		0.038	.002	.002	.290	C70				
S7020		.062	1.338	.012	.003	0.016	0.038	.010	0.018	0.016	.002	.035	.003	.0042	.0000		0.037	.002	.002	.291	STEELMAKING PROCESS: B0 Page 2 of 2				
S7022		.060	1.317	.014	.002	0.018	0.031	.010	0.018	0.017	.003	.035	.003	.0037	.0000		0.030	.002	.002	.286					
S7024		.060	1.318	.013	.003	0.017	0.035	.011	0.018	0.018	.004	.036	.003	.0036	.0000		0.034	.002	.002	.287					

Z05	Stamp of the expert :		Z02	Tata Steel IJmuiden BV Test House, IJmuiden SIMON BRAAM MANAGER TESTING 	
Z01	We certify that the delivery complies with the order prescriptions.				