A01
Tata Steel IJmuiden BV
Wenckebachstraat 1
1951 JZ Velsen Noord
Postbus 10000
1970 CA IJmuiden The Netherlands
Telephone: 0251-492110

Company Trade Register 34040351
E-mail: info.testing@tatasteeleurope.com

A07.A09 Reference
4500033431
11001475 00010

A02
Inspection certificate 3.1, EN10204.

B01.B02.B05.B04.B15
Hot rolled pickled, Coil, S355MC, YMPRESS WG S:01-2010.
1.00 G/M2/Side oiled.
Mill edges.
Tolerance EN 10051 : 2010 (E) (Width tolerance +20/-0 mm) Dev.Tol. (Thickness tolerance +0.15/-0.15 mm).
Country of melt and pour : The Netherlands.

TATA STEEL

A05 Doc. nr
2021000205 00

Z04

A06 Customer/Consignee
NAANTALI STEEL SERVICE CENTRE OY
RAUTAKATU 5

21110 NAANTALI

FINLAND

A08 Order nr.
56442 A

A11 Dispatch note
65834

A10 Transport
OSTBORG

B09.B10.B11 Dimensions
1500 mm X 5 mm

C10-C29 TENSILE TEST

B07 PROD.-IDENT	B13 MASS kg	B08 NR	B07 CAST NR.		C01	C01/C02	C10	B05	C03 Temp °C	C11 R_{eH} MPa	C11 R_{eL} MPa	C11 $R_{p0.2}$ MPa	C12 R_m MPa	C15 A %	C13 A %	C16 R_{eH}/R_m %	C17 r-value	C18 n-value
810414	10101	1	R8688		32	1L	P		+ 20	383			464	34.5		83		
810415A	9971	1	"															
810415B	9071	1	"															
810418	10341	1	"		32	1L	P		+ 20	395			473	34.0		84		
810419	10321	1	"															
810420	10191	1	"															
810368	10331	1	R8690		32	1L	P		+ 20	389			475	34.0		82		
810369	10331	1	"															
810370	10101	1	"															
810443	10131	1	R8700		32	1L	P		+ 20	395			473	34.0		84		
SUBTOTAL	100890	10																

HARDNESS

C40.C60.C65 IMPACT TEST AND OTHER TESTS

C32	C01/C02	C10	B05	C41 mm	C40.C60.C65	C05 Temp °C	C44	C42 ind.	C42 ind.	C42 ind.	C43 mean	C95 ASTM E-112

C71-C92 CHEMICAL COMPOSITION in %

B07 CAST NR.	B07 PROD.-IDENT	C71 C	C72 Mn	C75 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
R8688		.075	0.489	.015	.005	0.007	0.029	.007	0.024	0.021	.001	.024	.003	.0033	.0000		0.028	.002	.001	.164
R8690		.076	0.499	.015	.005	0.010	0.040	.006	0.025	0.021	.002	.027	.003	.0031	.0000		0.039	.001	.001	.167
R8700		.069	0.484	.014	.007	0.011	0.037	.007	0.019	0.020	.001	.026	.003	.0033	.0000		0.035	.001	.001	.156

C44 1: J/cm² 4: Contraction (%)
2: J 5: Shear area (%)
3: Later. exp. (mm)

C01 1:1=Top 2:1=Edge 2=Middle 2=Middle 3=Bottom

C01 C02 L=Longitudinal T=Transverse Z=in Thickn dir D=in Diagonal dir 1=Surface 2=Centre S=¼ Surface

C10 P=prismatical C=cylindrical

C-eql: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

C70 STEELMAKING PROCESS: BO

C50 Buigproef/Bend test/Biegeversuch/Test de flexion : goed/good/gut/concluant

Z05 Stamp of the expert :

Z05

B06

A04

Z01 We hereby confirm that we comply to the terms of our order acknowledgement and any agreed concessions

Z02
Tata Steel IJmuiden BV

JEFFREY FLEMMING
MGR. MECH. TESTING

IJMUIDEN, 2 JANUARI 2021

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1970 CA IJmuiden The Netherlands
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A08 Order nr.
56442 A

TATA STEEL

B09.B10.B11 Dimensions: 1500 mm X 5 mm

C10-C29 TENSILE TEST | HARDNESS | C40.C60.C65 IMPACT TEST AND OTHER TESTS

B07 PROD.-IDENT	B15 MASS kg	B08 NR	B07 CAST NR.		C01	C01/C02	C10	B05	C03 Temp °C	C11 R_{eH} MPa	C11 R_{eL} MPa	C11 $R_{p0.2}$ MPa	C12 R_m MPa	C15 A %	C15 A %	C16 R_{eH}/R_m	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
810444	10111	1	R8700		32	1L	P		+ 20	395			473	34.0		84														
810445	9861	1	"																											
TOTAL	120862	12																												

C71-C92 CHEMICAL COMPOSITION in %

B17 CAST NR.	B07 PROD.-IDENT	C71 C	C72 Mn	C75 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
R8700		.069	0.484	.014	.007	0.011	0.037	.007	0.019	0.020	.001	.026	.003	.0033	.0000		0.035	.001	.001	.15

C44 1: J/cm² 2: J 3: Later. exp. (mm) 4: Contraction (%) 5: Shear area (%)

C01 1:1=Top 2:1=Edge 2=Middle 2=Middle 3=Bottom

C01 C02 L=Longitudinal T=Transverse Z=in Thickn dir D=in Diagonal dir 1=Surface 2=Centre 5=Surface

C10 P=prismatical C=cylindrical

C-eql: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

C70 STEELMAKING PROCESS: BO

C50 Buigproef/Bend test/Biegeversuch/Test de flexion : goed/good/gut/concluant

Z05 Stamp of the expert :

Z05

B04 AB4

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Tata Steel IJmuiden BV

JEFFREY FLEMMING
MGR. MECH. TESTING

Jeffrey Flemming

IJMUIDEN, 2 JANUARI 2021