

**TATA STEEL**



**Celsius® 355 NH test certification**

Visible quality assurance



Our details  
Corby or Hartlepool

Your details

Notified body Approval Number 0038 –  
Lloyds Register Verification Ltd


Additional information required for CPR CE Marking

Product details

Test results – Yield Stress, Elongation, Tensile Strength, Impact Tests

Minimum 14 chemical elements confirms  
Celsius® 355 NH is fully killed fine grain steel.  
J2 only requires 5 chemical elements:  
C, Si, Mn, P and S so fully killed steel (Ff) is not  
immediately obvious.

Multilingual interpretations of code numbers are printed  
in full on the reverse side of the inspection certificate


A04
Tata Steel UK Limited
A01

**Corby Works**  
PO Box 101  
Corby Northants UK NN17 5UA

Telephone: +  
Fax: +

Customer A06

A . N . OTHER  
ANYTOWN  
ANYWHERE  
AB12 3CD

**EC CERTIFICATE (FPC) NUMBER 0038/CPR/200700**  
**DURABILITY: NO PERFORMANCE DETERMINED - SUB**

L = Longitudinal		T = Transverse		B = Body		W = Weld		HAZ = Heat Affecte	
Item No.	Number of Pieces	Product Dimensions (mm)						Cast/Heat No.	BO7
		BO8		BO9-B12		BO7			
		120.00 x 120.00 x 8.00 x 12.200M = 146.40M						7V88865	
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x
x	x	x	x	x	x	x	x	x	x

C71-C99	Analysis %	C	Si	Mn	P	S	Cr	M
Cast No.								
7V88865 LADLE		0.14	0.21	1.45	0.010	0.005	0.026	0.0
TYPICAL TATA ANALYSIS								
(EN10210 S355NH LIMITS)		0.20	0.50	0.90 1.65	0.035	0.030	0.30	0.1

Code Numbers in accordance with EN 10168 (see overleaf).

Alterations to this document or its use for other products shall be regarded as falsification of documents and be subject to criminal jurisdiction.

Z01 The products covered by this inspection document are c

CE Mark which indicates material is fully compliant with European Construction Product Regulations (CPR)

Celsius® 355 is supplied with guaranteed 3.1 certification. Other materials may have a representative 2.2 test report.

44 (0) 1536 402121  
44 (0) 1536 404111

# INSPECTION CERTIFICATE

## EN10204 Type 3.1

Date	14/01/13	Z02
Cert No.	120/1302/1026C	A03
Del. Note	EWC /0023	

Page No. 1 of 1



Tata Steel Ref.No. Sales **GXA 123456** Works **30 7634** A08

Customer Order No. **P/O: P012345678** OF **01/OCT/12** A07

Product Description B01-B04  
**CELSIUS HOT FINISHED WELDED STEEL RECTANGULAR HOLLOW SECTION TO EN 10210 : 2006 GRADE S355NH. (2T MAX CORNER PROFILE)**

03/A  
 SUBJECT TO FINAL COATING

NORMALISED ROLLED  
 MADE IN UK

Zone	S=Stripped Section	F=Full Section	KV=Charpy - V			HV= Hardness Vickers(10Kg Load)			HR=Hardness Rockwell B		
Tensile Test		Impact/Hardness Tests						Steel Making Process			
C01 C02 C10	Yield Stress Re (N/mm <sup>2</sup> )	C11 Tensile Strength Rm (N/mm <sup>2</sup> )	C12 Elong A 5.65 (%)	C13	C01 C02	C40 C30 Test Type	C41 Width (mm)	C03 Temp (C)	C42 C31 Values (J)	C43 C32 Ave (J)	C70
B L S	366.0	498.0	33		B L	KV	5.0	-20	86 97 88	90	BASIC OXYGEN STEEL  Other Tests <b>WELD SEAM 100% EDDY CURRENT TESTED TO EN 10246-3</b> <b>FLATTENING TEST FOR SEAM WELD QUALITY CONTROL, SATISFACTORY</b>
x x x	x x x	END OF	ITEM	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x
x x x	x x x	END OF	CERT	x x x	x x x	x x x	x x x	x x x	x x x	x x x	x x x


Co	Ni	Al	B	Cu	N	Nb	Sn	Ti	V	CEV
04	0.021	0.045	0.0001	0.014	0.005	0.033	0.002	0.002	0.003	0.39
0	0.50	MIN 0.020	---	0.35	0.020	0.050	---	0.03	0.12	0.43

compliance with European Regulation. The CE mark shown in Corby Works Inspection Document is only applicable to product standards (EN 10210) EN 10219, EN 10255) harmonized with the Construction Products Regulation (CPR) 89/106/EEC. Corby Works Quality System complies with the Pressure Equipment Directive (PED) 97/23/EC Annex I Para 4.3. For end users - only tubes in accordance with EN 10217 have a presumption of conformity with the PED. Certified by Tata Steel UK Limited and comply with the requirements of the Product Description.

S.M.Jeffrey  
 Quality Manager Z02  
 A05

This document has been prepared by a computer system and is valid without signature.

Authorisation



Weld seam test  
which is mandatory for certification  
(not required for 2.2 test report)

Non-mandatory tests which we  
guarantee for our quality control  
and your added assurance

Lower CEV than non alloy (J2)

# A CERTIFIED PRODUCT THAT YOU CAN RELY ON

When you specify **Celsius® 355** hot finished hollow sections, you need to be sure that the correct material has been supplied. Use of substitutes can result in an inferior structural performance – with serious consequences.

To give you confidence, we've made sure that **Celsius® 355** is sold only with full certification. The Inspection Certificate Type 3.1 supplied with this product is your guarantee that **Celsius® 355** is manufactured exclusively from fine grain, normalised steel to EN10210:S355NH standard. For building structures, this means complete assurance that your materials comply with the material requirements of all relevant British and European standards.

The Inspection Certificate Type 3.1 supplied with **Celsius® 355** gives you all the information that you need for peace of mind. It clearly shows:

- a description of the product - including confirmation of a 2T corner profile
- the mandatory tests undertaken for EN10210:S355NH certification
- the additional, non-mandatory tests undertaken by Tata Steel for extra quality assurance
- full chemical analysis (14 chemical elements) confirming that **Celsius® 355** is produced using fully-killed, fine grain steel – and providing you with full visibility and traceability
- the CE mark to prove that the material is fully compliant with the European Construction Product Regulation
- the Tata Steel name and symbol – providing assurance that your product is from a proven, reliable and fully traceable source

## Celsius® 355 Hot Finished Hollow Sections

- Formed at normalising temperature
- Higher sectional properties
- Fine grain structure
- Uniform mechanical properties
- Weldable in corner regions
- Higher compression capacity
- Negligible residual stress
- Tighter corner profile
- Suitability for galvanising
- Fire resistance capability
- Proven dynamic performance
- Guarantees full compliance with EN10210: S355NH
- Guarantees Specific Inspection so material matches test certificate
- Guarantees a minimum charpy impact, average value of 40J @ -20°C
- Guarantees full compliance with CE marking under the Construction Product Regulation (CPR)
- Tighter corner profile of 2T better than EN10210 which is to a maximum of 3T
- Meets and exceeds the J2H specification

[www.tatasteel.com](http://www.tatasteel.com)

While care has been taken to ensure that the information contained in this brochure is accurate, neither Tata Steel Europe Limited, nor its subsidiaries, accept responsibility or liability for errors or for information which is found to be misleading.

Copyright 2013  
Tata Steel Europe Limited

**Tata Steel**

PO Box 101  
Weldon Road  
Corby  
Northants  
NN17 5UA  
United Kingdom

T: +44 (0)1536 404561

F: +44 (0)1536 404111

[marketing@tatasteel.com](mailto:marketing@tatasteel.com)

English Language TST54:500:UK09/2013