

## Declaration of Performance

(according to Regulation EU No 305/2011)

Unique ID code TST Celsius355 [Grade S355NH / 1.0539] \*

Harmonised standard EN 10210-1:2006 - Hot finished structural hollow sections of non-alloy and fine grain steels - Part 1: Technical delivery conditions (issued on the Official Journal of the European Union on 01/02/2007)

Intended use To be used in metal structures or in composite metal and concrete structures. This product is supplied with a specific inspection document 3.1 (according to EN 10204) that includes the full length non-destructive testing of the weld (as defined in table 2 of EN 10210-1). This product is suitable for being used as constituent product of a steel structure according to EN 1090.

Manufacturer TATA STEEL UK LIMITED  
Registered in England No. 2280000  
Registered office: 18 Grosvenor Place, London, SW1X 7HS, UK  
Website : [www.tatasteelurope.com](http://www.tatasteelurope.com)

Authorised representative Simon Edwards – Technical Director (acting)  
Tata Steel  
Wenckebachstraat 1  
Velsen Noord 1951 JZ NL  
PO Box 10.000  
Ijmuiden  
1970 CA NL

System of AVCP System of assessment and verification of constancy of performance of the product  
System 2+ (FPC Certificate No: 2814/CPR/LRQ0840080/A)

Notified body Notified body No. 2814  
LRQA Verification B.V.  
George Hintzenweg 77  
3068 AX Rotterdam  
The Netherlands

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance		Harmonised technical specification	
	Nominal thickness (mm)	Values Min (MPa)		
Yield strength	≤ 16	355	EN 10210-1:2006	
	> 16 ≤ 40	345		
	> 40 ≤ 65	335		
Tensile strength	Nominal thickness (mm)	Values (MPa)		
		min		max
	≤ 3	510 (a)		630
	≤ 65	470		630
Elongation	Nominal thickness (mm)	Values min (%)		
		longitudinal		
		transverse		
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min. average (J) at Test Temp (°C)	
	NH	≤ 65	40J at - 20°C	
Weldability (CEV)	Nominal thickness (mm)	Values max (%)		
		≤ 16		
		> 16	≤ 65	
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)		
		C	0.20	
		Si	0.14–0.25	
		Mn	0.90–1.60 (b)	
		P	0.030 (c)	
		S	0.030	
		Nb	0.050	
		V	0.12	
		Al	0.020 min.	
		Ti	0.03	
Tolerances on dimensions and shape	Round, square, rectangular and elliptical hollow sections	In accordance with EN 10210-2:2006		
		The product is suitable for hot dip galvanizing according to EN ISO 1461:2009 and fulfils the conditions of Category B of EN ISO 14713-2:2020		

Notes:

- (a) The declared minimum value (510) is above the minimum allowed (470)  
 (b) The declared maximum content (1.60) is below the maximum allowed (1.65)  
 (c) The declared maximum content (0.030) is below the maximum allowed (0.035)  
 (d) GF – Fully killed fine grain steel containing nitrogen binding elements



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TST Celsius355 [Grade S355NH / 1.0539]

EN 10210-1:2006

**To be used in metal structures or in composite metal and concrete structures. This product is supplied with a specific inspection document 3.1 (according to EN 10204) that includes the full length non-destructive testing of the weld (as defined in table 2 of EN 10210-1). This product is suitable for being used as constituent product of a steel structure according to EN 1090.**

**Performance declared for the following essential characteristics:**

**Yield strength:** 355 Mpa (≤ 16 mm)

**Tensile strength:** 470 – 630 MPa (> 3 mm)

**Elongation:** 22%

**Impact strength:** 40J at - 20°C

**Weldability (CEV):** 0.43% (≤ 16 mm)

**Durability:** See Declaration of Performance

**Tolerances on dimensions and shape:** In accordance with EN 10210-2:2006

**Dangerous Substances:** No Performance Determined (NPD)



Richard Sidebottom  
Director Mills, DSO & Technical

Date 24/07/2023

## Declaration of Performance

(according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2020 No 1359)

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Designated standard EN 10210-1:2006 - Hot finished structural hollow sections of non-alloy and fine grain steels - Part 1: Technical delivery conditions (issued on the Official Journal of the European Union on 01/02/2007)

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System of AVCP System of assessment and verification of constancy of performance of the product  
System 2+ (FPC Certificate No: 0038/CPR/LRQ0840080/A)

Approved body Approved body No. 0038  
LRQA Verification Limited  
1 Trinity Park, Bickenhill  
Birmingham, B37 7ES  
UK

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance		Harmonised technical specification	
	Nominal thickness (mm)	Values Min (MPa)		
Yield strength	≤ 16	355	EN 10210-1:2006	
	> 16 ≤ 40	345		
	> 40 ≤ 65	335		
Tensile strength	Nominal thickness (mm)	Values (MPa)		
		min		max
	≤ 3	510 (a)		630
≤ 65	470	630		
Elongation	Nominal thickness (mm)	Values min (%)		
		longitudinal		
	≤ 65	22		
transverse	20			
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min. average (J) at Test Temp (°C)	
	NH	≤ 65	40J at - 20°C	
Weldability (CEV)	Nominal thickness (mm)		Values max (%)	
	≤ 16		0.43	
	> 16	≤ 65	0.45	
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)		
		C	0.20	
		Si	0.14–0.25	
	Mn	0.90–1.60 (b)		
P	0.030 (c)			
S	0.030			
Nb	0.050			
V	0.12			
Al	0.020 min.			
Ti	0.03			
Cr	0.30			
Ni	0.50			
Mo	0.10			
Cu	0.35			
N	0.020			
		GF deoxidation (d)		
The product is suitable for hot dip galvanizing according to EN ISO 1461:2009 and fulfils the conditions of Category B of EN ISO 14713-2:2020				
Tolerances on dimensions and shape	Round, square, rectangular and elliptical hollow sections	In accordance with EN 10210-2:2006		

Notes:

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