TATA STEEL

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.tatasteeleurope.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: 0343/CPR/LRQ0840080/A)
Notified body	Notified body No. 0343 LRQA Nederland B.V. George Hintzenweg 77 3068 AX Rotterdam The Netherlands

Richard Sidebottom
Director Mills, DSO & Technical

Date 01/04/2024

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance				Harmonised technical specification
Yield strength	Nominal thickness (mm)		Values Min (MPa)		EN 10210-1:2006
	≤ 16		355		
	> 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 (ºC)		
	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)		
	≤ 65		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:
(*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

CE

0343

TATA STEEL UK LIMITED
Registered in England No. 2280000
Registered office: 18 Grosvenor Place, London, SW1X 7HS, UK

24

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)

* The declared performances also fulfil the requirements for grade S355J2H / 1.0576 for all essential characteristics

TATA STEEL

Declaration of Performance

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

Unique ID code	TST Celsius355 [Grade S355NH / 1.0539] *
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)
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.tatasteeleurope.com
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

Richard Sidebottom
Director Mills, DSO & Technical

Date 01/04/2024

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance			Harmonised technical specification
Yield strength	Nominal thickness (mm)		Values Min (MPa)	EN 10210-1:2006
	≤ 16		355	
	> 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)	
	≤ 65		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:
(*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

UK CA

0038

TATA STEEL UK LIMITED
Registered in England No. 2280000
Registered office: 18 Grosvenor Place, London, SW1X 7HS, UK

21

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)

* The declared performances also fulfil the requirements for grade S355J2H / 1.0576 for all essential characteristics