

## 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](http://www.tatasteeleurope.com)

Authorised representative Mark Denys – Quality Director  
Tata Steel  
Wenckebachstraat 1  
Velsen Noord 1951 JZ NL  
PO Box 10.000  
Limuiden  
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  
Lloyd's Register Verification B.V.  
K.P. van der Mandelelaan 41A  
Rotterdam  
Netherlands

John Collingham  
Director Operations, Tubes  
Souvereinstraat 35, Oostervout, 4903 RH  
Netherlands

Date 12/07/2021



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	335		
Tensile strength	Nominal thickness (mm)	Values (MPa)	EN 10210-1:2006	
		min		max
	≤ 3	510 (a)		630
	≤ 65	470		630
Elongation longitudinal	Nominal thickness (mm)	Values min (%)	EN 10210-1:2006	
		22		
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min, average (J) at Test Temp (°C)	
				NH
Weldability (CEV)	Nominal thickness (mm)	Values max (%)	EN 10210-1:2006	
		≤ 16		0.43
		> 16 ≤ 65		0.45
Durability	Nominal thickness (mm)	Composition (cast) (max, unless otherwise shown)	EN 10210-1:2006	
		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			
Tolerances on dimensions and shape	Round, square, rectangular and elliptical hollow sections	In accordance with EN 10210-2:2006	EN 10210-1:2006	
		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

2814



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)

## Declaration of Performance

(according to The Construction Products (Amendment etc.) (EU Exit) Regulations 2019 No 465)

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](http://www.tatasteeleurope.com)

System of AVCP System of assessment and verification of constancy of performance of the product  
 System 2+ (FPC Certificate No: 0038/CPRL/RQ0840080/A)

Approved body Approved body No. 0038  
 Lloyds Register Verification Ltd  
 71 Fenchurch Street, London EC3M 4BS

John Collingham  
 Director Operations, Tubes  
 Souvereinstraat 35, Oosterhout, 4903 RH  
 Netherlands




Date 20/09/2021

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

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance	Harmonised technical specification																											
Yield strength	Nominal thickness (mm)	Values Min (MPa)																											
	<table border="1"> <tr><td>≤ 16</td><td>355</td></tr> <tr><td>&gt; 16 ≤ 40</td><td>345</td></tr> <tr><td>&gt; 40 ≤ 65</td><td>335</td></tr> </table>		≤ 16	355	> 16 ≤ 40	345	> 40 ≤ 65	335																					
≤ 16	355																												
> 16 ≤ 40	345																												
> 40 ≤ 65	335																												
Tensile strength	Nominal thickness (mm)	Values (MPa)																											
	<table border="1"> <tr><td>≤ 3</td><td>min</td><td>max</td></tr> <tr><td>≤ 65</td><td>510 (a)</td><td>630</td></tr> <tr><td></td><td>470</td><td>630</td></tr> </table>		≤ 3	min	max	≤ 65	510 (a)	630		470	630																		
≤ 3	min	max																											
≤ 65	510 (a)	630																											
	470	630																											
Elongation longitudinal	Nominal thickness (mm)	Values min (%)																											
	≤ 65		22																										
Impact strength (longitudinal)	Grade	Impact Value min. average (J) at Test Temp (°C)																											
	NH		40J at -20°C																										
Weldability (CEV)	Nominal thickness (mm)	Values max (%)																											
	> 16 ≤ 65		0.43																										
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)																											
	≤ 65		<table border="1"> <tr><td>C</td><td>0.20</td></tr> <tr><td>Si</td><td>0.14-0.25</td></tr> <tr><td>Mn</td><td>0.90-1.60 (b)</td></tr> <tr><td>P</td><td>0.030 (c)</td></tr> <tr><td>S</td><td>0.030</td></tr> <tr><td>Nb</td><td>0.050</td></tr> <tr><td>V</td><td>0.12</td></tr> <tr><td>Al</td><td>0.020 min.</td></tr> <tr><td>Ti</td><td>0.03</td></tr> <tr><td>Cr</td><td>0.30</td></tr> <tr><td>Ni</td><td>0.50</td></tr> <tr><td>Mo</td><td>0.10</td></tr> <tr><td>Cu</td><td>0.35</td></tr> <tr><td>N</td><td>0.020</td></tr> </table>	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
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																												
Tolerances on dimensions and shape	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 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



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)**