TATA STEEL

Declaration of Performance

(according to Regulation EU No 305/2011)

Unique ID code	TST Celsius420NH [Grade S420NH / 1.8750]
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. Table 1 of EN 1090-2:2018 requires a 3.1 inspection document for structural steel above S275.
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	Mark Denys – Quality Director 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 Lloyd's Register Verification B.V. K.P. van der Mandelelaan 41A Rotterdam Netherlands

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

Date 12/07/2021

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		420	
	> 16	≤ 40	400	
	> 40	≤ 65	390	
Tensile strength	Nominal thickness (mm)		Values (MPa)	
	≤ 65		min 520	max 680
Elongation	Nominal thickness (mm)		Values min (%)	
longitudinal	≤ 65		19	
transverse			17	
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min. average (J) at Test Temp (°C)	
	NH	≤ 65	40J at - 20°C *(a)*	
Weldability (CEV)	Nominal thickness (mm)		Values max (%)	
	≤ 16		0.45 *(b)*	
	> 16	≤ 65	0.45 *(c)*	
Durability	Nominal thickness (mm)		Composition (cast) (max. unless otherwise shown)	
	≤ 65		C 0.22 Si 0.14 – 0.25 Mn 1.00 – 1.70 P 0.035 S 0.030 Nb 0.050 V 0.20 Al 0.020 min. Ti 0.03 Cr 0.30 Ni 0.80 Mo 0.10 Cu 0.70 N 0.025	
			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) Value for 10 x 10mm specimen; 10 x 7.5mm specimen = 30J; 10 x 5mm specimen = 20J
(b) Declared performance is below the maximum allowed by the standard (0.50)
(c) Declared performance is below the maximum allowed by the standard (0.52)
(d) GF – Fully killed fine grain steel containing nitrogen binding elements

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

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TST Celsius420NH [Grade S420NH / 1.8750]

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. Table 1 of EN 1090-2:2018 requires a 3.1 inspection document for structural steel above S275.

Performance declared for the following essential characteristics:
Yield strength: 420 MPa (≤ 16 mm)
Tensile strength: 520 – 680 MPa
Elongation: 19%
Impact strength: 40J at - 20°C
Weldability (CEV): 0.45%
Durability: See Declaration of Performance
Tolerances on dimensions and shape: In accordance with EN 10210-2: 2006

Dangerous Substances: No Performance Determined (NPD)

TATA STEEL

Declaration of Performance

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

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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 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

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