

## Declaration of Performance (according to Regulation EU No 305/2011)

Unique ID code: TST Celsius460NH [Grade S460NH / 1.8753]  
 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: 30 Millbank, London, SW1P 4WY, UK  
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 1970 CA NL

System of AVCP: System of assessment and verification of constancy of performance of the product  
 System 2+ (FPC Certificate No: 1370-CPR-1705  
 Corby and 1370-CPR-1706 Hartlepool)

Notified body: Notified body No. 1370  
 BUREAU VERITAS ITALIA S.P.A.  
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 20126 - MILANO (MI)  
 Italy

Coenraad Spaans  
 Director Operations, Tubes  
 Souvereinstraat 35, Oosterhout, 4903 RH  
 Netherlands  
 Date 20/01/2020

Table 1 – Essential characteristics and declared performances\*

Essential characteristic	Performance	Harmonised technical specification
Yield strength	Nominal thickness (mm)	Values Min (MPa)
	≤ 16	460
	> 16 ≤ 40	440
Tensile strength	Nominal thickness (mm)	Values (MPa)
	≤ 65	min max
	540 720	
Elongation longitudinal transverse	Nominal thickness (mm)	Values min (%)
	≤ 65	17
		15
Impact strength (longitudinal)	Grade	Impact Value min. average (J) at Test Temp. (°C)
	NH ≤ 65	40J at -20°C†
Weldability (CEV)	Nominal thickness (mm)	Values max (%)
	≤ 16	0.53
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 0.60	
	Mo 0.10	
	Cu 0.70	
	N 0.025	
	GF deoxidation*	
Tolerances on dimensions and shape	Round, square, rectangular and elliptical hollow sections	In accordance with EN 10210-2: 2006

Notes:  
 † Value for 10 x 10mm specimen; 10 x 7.5mm specimen = 30J; 10 x 5mm specimen = 20J  
 \*GF – Fully killed fine grain steel containing nitrogen binding elements

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EN 10210-1: 2006

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Performance declared for the following essential characteristics (see Table 1):

- Yield strength
- Tensile strength
- Elongation
- Weldability
- Durability

Tolerances on dimensions and shape

Dangerous Substances: No Performance Determined (NPD)