

Declaration of Performance

(according to Regulation EU No 305/2011)

Unique ID code TST Celsius355NLH [Grade S355NLH / 1.0549]

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.tatasteelurope.com

Authorised representative Simon Edwards – Technical Director (acting)
Tata Steel
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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



Richard Sidebottom
Director Mills, DSO & Technical

Date 24/07/2023

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		
	Nominal thickness (mm)			
Tensile strength	≤ 65	min	max	
		470	630	
	Nominal thickness (mm)			
Elongation	≤ 65	22		
		20		
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min. average (J) at Test Temp (°C)	
	NLH	≤ 65	27J at - 50°C	
Weldability (CEV)	Nominal thickness (mm)		Values max (%)	
	≤ 16		0.43	
	> 16 ≤ 65		0.45	
Durability	≤ 65	Nominal thickness (mm)		Composition (cast) (max. unless otherwise shown)
		C	0.20	
		Si	0.14 – 0.25	
		Mn	0.90 – 1.65	
		P	0.035	
		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 (a)				
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) GF – Fully killed fine grain steel containing nitrogen binding elements



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TST Celsius355NLH [Grade S355NLH / 1.0549]

EN 10210-1:2006

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Performance declared for the following essential characteristics:

Yield strength: 355 MPa (≤ 16 mm)

Tensile strength: 470 – 630 MPa

Elongation: 22%

Impact strength: 27J at - 50°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 2020 No 1359)

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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 24/07/2023

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	Nominal thickness (mm)	Values Min (MPa)	
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	> 40 ≤ 65	335	
Tensile strength	Nominal thickness (mm)	Values (MPa)	EN 10210-1:2006
	≤ 65	min 470 max 630	
Elongation	Nominal thickness (mm)	Values min (%)	EN 10210-1:2006
	≤ 65	22 longitudinal 20 transverse	
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	EN 10210-1:2006
	NLH	≤ 65	
Weldability (CEV)	Nominal thickness (mm)	Impact Value min. average (J) at Test Temp (°C)	EN 10210-1:2006
	≤ 16	27J at - 50°C	
	> 16 ≤ 65		
Durability	Nominal thickness (mm)	Values max (%)	EN 10210-1:2006
	≤ 65	0.43 0.45	
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)	EN 10210-1:2006
	≤ 65	C 0.20 Si 0.14 – 0.25 Mn 0.90 – 1.65 P 0.035 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	
Durability	GF deoxidation (a)		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		
Tolerances on dimensions and shape	Round, square, rectangular and elliptical hollow sections	In accordance with EN 10210-2:2006	EN 10210-2:2006

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