

Declaration of Performance

(according to Regulation EU No 305/2011)

Unique ID code TSNT TT355MH [Grade S355MH / 1.8845]

Harmonised standard EN 10219-1:2006 - Cold formed welded 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 10219-1). 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 NEDERLAND TUBES BV Registered in Netherlands No. 20022812

Registered office: Souvereinstraat 35, Oosterhout,

4903 RH. Netherlands

Website: www.tatasteelnederland.com

System of AVCP

System of assessment and verification of constancy

of performance of the product System 2+ (FPC Certificate No: 0343/CPR/RQA2007001/A)

Notified body

Notified body No. 0343 LRQA Nederland B.V. George Hintzenweg 77 3068 AX Rotterdam Netherlands

Jacob Gerkema

Managing Director Tata Steel Nederland Tubes B.V. Souvereinstraat 35, Oosterhout, 4903 RH Netherlands Date 09/01/2025

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Table 1 – Essential characteristics and declared performances

Essential	ble 1 – Essential characteristics and declared performance Performance				Harmonised technical
characteristic					specification
Yield strength	Nominal thickness		Value		
	(mm)		min (MPa)		
	≤ 16		355 Values		
Tensile strength	Nominal thickness		Values (MPa)		
	(mm)		min	max	
Elongation	≤ 16 Nominal		450 Valu	610	
	thickness		min (%)		
	(mm)		long. 22		
	≤ 16		(20 where Table B.5, Note a applies)		
Impact	Grade	Nom. Thk.	Impact		
strength (longitudinal)		(mm)	at Test Te	min. average (J) at Test Temp (°C)	
(iorigitudinal)	MH	≤ 16	40J at -	20°C	
Weldability (CEV)	Nominal thickness		Value		
	(mm)		max (%)		
	≤ 16 Nominal		0.39		EN 10219-1:
Durability	thickness		Composition (cast) (max. unless otherwise shown)		2006
	(mm)		C: 0.14	V: 0.10	2000
	≤ 16		Si: 0.50	Al: 0.020 min.	
			Mn: 1.50 P: 0.035	Ti: 0.050 Ni: 0.30	
			S: 0.030	Mo: 0.20	
			Nb: 0.050	N: 0.020	
			GF deoxidation (a)		
	Durability is also dependent on any method of protection subsequently applied and the type and				
	thickness of the coating				
Tolerances on dimensions and shape	Rectang H.B <		gular sections	Circular sections	
	Outside dimensions	100	0.5% min. = 0.25 mm <i>(b)</i>	± 0.5% min.= ± 0.25 mm max.= ± 5 mm (b)	
		mm H,B ≤	111111. – 0.23 11111 (<i>b</i>)		
		n,b ≥ 200	0.4% (b) 0.3% (b)		
		mm			
	Outs	H,B > 200			
		mm	EN 10210 2 (a)	EN 40240 2 (a)	
	Thickness Out-of-		EN 10219-2 (c)	EN 10219-2 (c)	
	roundness (for		Not applicable	1% <i>(b)</i>	
	D/T < 100) Concavity/		0.4 %	N	
	convexity		min. = 0.25 mm (b)	Not applicable	
	Squareness of side		90° ± 0.5° (b)	Not applicable	
	External corner profile	T ≤ 6.0	2T ± 0.2T (or 1.8T		
		6.0 < T	to 2.2T) (b) 2.5T \pm 0.25T (or 2.25T to 2.75T) (b) $3T \pm 0.3T$ (or 2.7T to 3.3T) (b)		
		≤10.0		Not applicable	
		T > 10.0			
	Twist		EN 10219-2 (c)	Not applicable	
	Straightness Mass per unit		EN 10219-2 (c)	EN 10219-2 (c)	
	length		EN 10219-2 (c)	EN 10219-2 (c)	
Notes:	Length		EN 10219-2 (c)	EN 10219-2 (c)	

(a) GF - Fully killed steel containing nitrogen binding elements

(b) The declared tolerance is half of the maximum allowed by EN 10219-2:2006

(c) The declared tolerance is the maximum allowed by EN 10219-2:2006





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EN 10219-1:2006

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Performance declared for the following essential characteristics:

Yield strength: 355 MPa
Tensile strength: 450 – 610 MPa
Elongation: 22% (20% where Table B.5.a applies)
Impact strength: 40J at - 20°C

Weldability (CEV): 0.39%

Durability: See Declaration of Performance

Tolerances on dimensions and shape: See Declaration of

Performance

Dangerous Substances: No Performance Determined (NPD)

TATA STEEL

Declaration of Performance

(according to The Construction Products (Amendment etc.) (EU Exit) Regulations SI 2020-1359)

Unique ID code TSNT TT355MH [Grade S355MH / 1.8845]

Designated standard EN 10219-1:2006 - Cold formed welded structural

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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/RQA20070001/A)

Approved body No. 0038 Approved body LRQA Verification Ltd.

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Date 09/01/2025

Jacob Gerkema Managing Director Tata Steel Nederland Tubes B.V. Souvereinstraat 35, Oosterhout, 4903 RH Netherlands

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Table 1 - Essential characteristics and declared performances **Harmonised** Essential Performance technical characteristic specification Nominal Value thickness min (MPa) Yield strength (mm) 355 ≤ 16 Nominal Values Tensile thickness (MPa strength (mm) min 450 ≤ 16 610 Nominal Value thickness min (%) Elongation (mm) long. ≤ 16 (20 where Table B.5, Note a applies) Nom. Impact Value Impact Grade Thk min. average (J) strength

at Test Temp (°C) (longitudinal) MH ≤ 16 40J at - 20°C Nominal Value Weldability thickness max (%) (CEV) (mm) ≤ 16 0.39 EN 10219-1: Nominal Composition (cast)

(mm)

thickness (max. unless otherwise shown) (mm) C: 0.14 V: 0.10 Al: 0.020 min. Si: 0.50 Mn: 1.50 Ti: 0.050 P: 0.035 Ni: 0.30 ≤ 16 S: 0.030 Mo: 0.20 Nb: 0.050 N: 0.020

2006

GF deoxidation (a) Durability is also dependent on any method of protection subsequently applied and the type and thickness of the coating

Rectangular sections Circular sections H.B < 0.5% dimensions 100 min. = 0.25 mm (b)mm H.B ≤ ± 0.5% 200 0.4% (b) min.= ± 0.25 mm $max.= \pm 5 mm (b)$ Outside mm H,B > 200 0.3% (b) mm

EN 10219-2 (c) EN 10219-2 (c) Thickness Out-ofroundness (for Not applicable 1% (b) D/T < 100) Tolerances or dimensions Concavity/ 0.4 % Not applicable min. = 0.25 mm (b) and shape convexity Squareness of $90^{\circ} \pm 0.5^{\circ}$ (b) Not applicable External corner profile 2T ± 0.2T (or 1.8T Γ ≤ 6.0 to 2.2T) (b) 6.0 < T 2.5T ± 0.25T (or Not applicable ≤10.0 2.25T to 2.75T) (b) 3T ± 0.3T (or 2.7T 10.0 to 3.3T) (b) Twist EN 10219-2 (c) Not applicable

Durability

(a) GF – Fully killed steel containing nitrogen binding elements

Straightness

Mass per unit

length

Lenath

(b) The declared tolerance is half of the maximum allowed by EN 10219-2:2006

EN 10219-2 (c)

c) The declared tolerance is the maximum allowed by EN 10219-2:2006



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