TATA STEEL

Declaration of Performance

(according to Regulation EU No 305/2011)

Unique ID code	Forcon® TT 420MLH [Grade S420MLH / 1.8848]
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

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

Date 04/09/2025

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance				Harmonised technical specification
Yield strength	Nominal thickness (mm)		Values min (MPa)		EN 10219-1:2006
	≤ 16		420		
Tensile strength	Nominal thickness (mm)		Values (MPa)		
			min	max	
	≤ 16		500	660	
Elongation	Nominal thickness (mm)		Values min (%)		
			long.		
	≤ 16		19 (17 where Table B.5, Note a applies)		
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)	Impact Value min. average (J) at Test Temp (°C)		
	MLH	≤ 16	27J at - 50°C		
Weldability (CEV)	Nominal thickness (mm)		Values max (%)		
	≤ 16		0.43		
Durability	Nominal thickness (mm)		Composition (cast) (max. unless otherwise shown)		
	≤ 16		C	0.16	
			Si	0.50	
			Mn	1.70	
			P	0.030	
			S	0.025	
			Nb	0.050	
			V	0.12	
			Al	0.020 min.	
			Ti	0.050	
			Ni	0.30	
			Mo	0.20	
			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	Round, square and rectangular hollow sections		In accordance with EN 10219-2:2006		

Notes: *(a)* GF – Fully killed fine grain steel containing nitrogen binding elements

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TATA STEEL NEDERLAND TUBES BV
Registered in Netherlands No. 20022812
Registered office: Souvereinstraat 35, Oosterhout, 4903 RH, Netherlands

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Forcon® TT 420MLH [Grade S420MLH / 1.8848]

EN 10219-1:2006

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Performance declared for the following essential characteristics:
Yield strength: 420 MPa
Tensile strength: 500 – 660 MPa
Elongation: 19% (17% where Table B.5.a applies)
Impact strength: 27J at - 50°C
Weldability (CEV): 0.43%
Durability: See Declaration of Performance
Tolerances on dimensions and shape: In accordance with EN 10219-2:2006

Dangerous Substances: No Performance Determined (NPD)

TATA STEEL

Declaration of Performance

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

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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	Approved body No. 0038 LRQA Verification Ltd. 1 Trinity Park, Bickenhill Lane Solihull, West Midlands Birmingham B37 7ES United Kingdom

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