



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

Unique ID code TSNT 420MH [Grade S420MH / 1.8847]

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.

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

Table 1 – Essential characteristics and declared performances

Essential characteristic	Performance		Harmonised technical specification	
	Nominal thickness (mm)	Values min (MPa)		
Yield strength	≤ 16	420	EN 10219-1:2006	
	Tensile strength	Nominal thickness (mm)		Values (MPa)
min max				
Elongation	Nominal thickness (mm)	min max		
		long.		
Impact strength (longitudinal)	Grade	Nom. Thk. (mm)		Impact Value min. average (J) at Test Temp (°C)
				MH ≤ 16
Weldability (CEV)	Nominal thickness (mm)	Values max (%)		
		≤ 16		0.43
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)		
		C	0.16	
		Si	0.50	
		Mn	1.70	
Tolerances on dimensions and shape	Round, square and rectangular hollow sections	P	0.035	
		S	0.030	
		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				
In accordance with EN 10219-2:2006				

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



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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: 40J at - 20°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)

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

Date 09/01/2025

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(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
Solithull, West Midlands
Birmingham
B37 7ES
United Kingdom

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	Impact Value min. average (J) at Test Temp (°C)	
	Nom. Thk. (mm)		
	MH	≤ 16 40J at - 20°C	
Weldability (CEV)	Nominal thickness (mm)	Values max (%)	
	≤ 16	0.43	
Durability	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)	
		C 0.16 Si 0.50 Mn 1.70 P 0.035 S 0.030 Nb 0.050 V 0.12 Al 0.020 min. Ti 0.050 Ni 0.30 Mo 0.20 N 0.020	
	≤ 16	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 steel containing nitrogen binding elements



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