



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

Unique ID code TSNT 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

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	
	Values (MPa)			
Tensile strength	Nominal thickness (mm)	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)		
		C	0.16	
	Si	0.50		
	Mn	1.70		
≤ 16	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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TSNT 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)

Jacob Gerkema
Managing Director
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Souvereinstraat 35, Oosterhout, 4903 RH
Netherlands

Date 09/01/2025

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Declaration of Performance

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

Unique ID code TSNT 420MLH [Grade S420MLH / 1.8848]

Designated 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)

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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
Soliuhull, West Midlands
Birmingham
B37 7ES
United Kingdom

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
	Nominal thickness (mm)	Values (MPa)	
Tensile strength	≤ 16	min 500 max 660	
	Nominal thickness (mm)	Values min (%)	
Elongation	≤ 16	19 (17 where Table B.5, Note a applies)	
	Grade	Impact Value min. average (J) at Test Temp (°C)	
Impact strength (longitudinal)	MLH	27J at - 50°C	
	Nominal thickness (mm)	Values max (%)	
Weldability (CEV)	≤ 16	0.43	
	Nominal thickness (mm)	Composition (cast) (max. unless otherwise shown)	
Durability		≤ 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	

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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)

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