



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.tatasteelurope.com

System of AVCP System of assessment and verification of constancy of performance of the product
System 2+ (FPC Certificate No: 2814/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 | |
| | 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 | Nom. Thk. (mm) | | Impact Value min. average (J) at Test Temp (°C) |
| Impact strength (longitudinal) | MH | ≤ 16 | | 40J at - 20°C |
| | Weldability (CEV) | Nominal thickness (mm) | | Values max (%) |
| Durability | ≤ 16 | 0.43 | | |
| | Nominal thickness (mm) | Composition (cast) (max. unless otherwise shown) | | |
| 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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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)

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

Date 01/04/2024



Declaration of Performance

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

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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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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/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) | |
| | ≤ 16 | min max | |
| | ≤ 16 | 500 660 | |
| Elongation | Nominal thickness (mm) | Values min (%) | |
| | ≤ 16 | long, 19 (17 where Table B.5, Note a applies) | |
| Impact strength (longitudinal) | Grade | Impact Value min. average (J) at Test Temp (°C) | |
| | 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:
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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)

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