TATA STEEL

Declaration of Performance

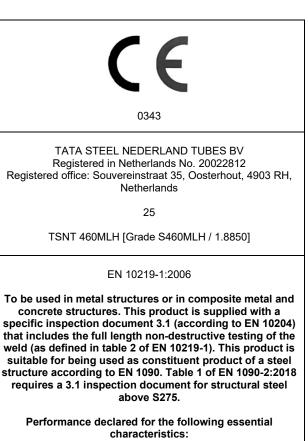
(according to Regulation EU No 305/2011)

Unique ID code TSNT 460MLH [Grade S460MLH / 1.8850] 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

| Essential characteristic | Performance | | | Harmonised technical specification | |
|--|------------------------------|-------------------|---|--|-----------------|
| Yield strength | Nominal thickness (mm) | | Values min (MPa) | | |
| | ≤ 16 | | 460 | | |
| Tensile strength | Nominal | | Values | | |
| | thickness (mm) | | (MPa) min max | | |
| | ≤ 16 | | 530 | 720 | |
| Elongation | Nominal thickness | | Values min (%) | | |
| | (mm) ≤ 16 | | long. 17 (15 where Table B.5, | | |
| Impact strength (longitudinal) | Grade Nom. (mm) | | Note a applies) Impact Value min. average (J) at Test Temp (°C) | | |
| | MLH | <u>≤</u> 16 | 27J at - 50°C | | |
| Weldability (CEV) | Nominal thickness (mm) | | Values max (%) | | EN 10219-1:2006 |
| | ≤ 16 | | 0.46 | | |
| | Nominal thickness (mm) | | Composition (cast) (max. unless otherwise shown) | | |
| Durability | ≤16 | | C 0.1 Si 0.6 Mn 1.7 P 0.0 S 0.0 Nb 0.0 V 0.1 AI 0.0 Ti 0.0 Ni 0.3 Mo 0.2 N 0.0 | 0 0 30 25 50 2 20 min. 50 0 0 | |
| | | | GF deoxidation (a) | | |
| | | | dependent on any method sequently applied and the s of the coating | | |
| Tolerances on dimensions and shape | Round, and recta | square angular | In accordance with EN 10219-2:2006 | | |

Table 1 - Essential characteristics and declared performances

2006



Yield strength: 460 MPa Tensile strength: 530 – 720 MPa **Elongation:** 17% (15% where Table B.5.a applies) Impact strength: 27J at - 50°C Weldability (CEV): 0.46% 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

Netherlands

Tata Steel Nederland Tubes B.V.

Souvereinstraat 35, Oosterhout, 4903 RH

Date 09/01/2025

DocuSigned by: BBAC84320D6F4EC.



Declaration of Performance

| (according to The Construction Products (Amendment etc.) (EU Exit) Regulations SI 2020-1359) | | | | | |
|---|----------------|--|--|--|--|
| | Unique ID code | TSNT 460MLH [Grade S460MLH / 1.8850] | | | |
| 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) | | | |
| | 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: <u>www.tatasteelnederland.com</u> | | | |
| | 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 | | | |
| | | | | | |

min (MPa) Yield strength (mm) ≤ 16 460 Nominal Values (MPa) thickness Tensile strength (mm) max min 720 530 ≤ 16 Values Nominal thickness min (%) (mm) long. Elongation 17 ≤ 16 (15 where Table B.5, Note a applies) Impact Value Nom. Thk. Grade min. average (J) Impact strength (mm) at Test Temp (°C) (longitudinal) MLH ≤ 16 27J at - 50°C EN 10219-1:2006 Nominal Values Weldability thickness max (%) (CEV) (mm) 0.46 ≤ 16 Nominal Composition (cast) thickness (max. unless otherwise shown) (mm) 0.16 С Si 0.60 Mn 1.70 0.030 Ρ S 0.025 0.050 Nb V 0.12 Durability ≤ 16 AI 0.020 min. Ti 0.050 Ni 0.30 Мо 0.20 Ν 0.025 GF deoxidation (a) Durability is also dependent on any method of protection subsequently applied and the vpe and thickness of the coating Tolerances on Round, square In accordance with dimensions and and rectangular EN 10219-2:2006 shape hollow sections

Table 1 - Essential characteristics and declared performances

Performance

Values

Nominal

thickness

Essential

characteristic

Harmonised

technical

specification

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

Jacob Gerkema

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



Date 09/01/2025

Registered in Netherlands No. 20022812 Registered office: Souvereinstraat 35, Oosterhout, 4903 RH, Netherlands 25 TSNT 460MLH [Grade S460MLH / 1.8850] EN 10219-1:2006 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. Performance declared for the following essential characteristics: Yield strength: 460 MPa Tensile strength: 530 - 720 MPa Elongation: 17% (15% where Table B.5.a applies) Impact strength: 27J at - 50°C Weldability (CEV): 0.46% **Durability:** See Declaration of Performance Tolerances on dimensions and shape: In accordance with EN 10219-2:2006

UK

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TATA STEEL NEDERLAND TUBES BV

Dangerous Substances: No Performance Determined (NPD)