

# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00001VR**  
Revision No:  
**2**

**This is to certify:**

**That**

**ArcelorMittal Tubular Products Roman S.A.**  
**Str. Stefan Cel Mare Nr. 246 bloc 15A**  
**611038 Roman,**  
**Romania**

is an approved manufacturer of  
**Steel Pipes and Fittings**

in accordance with  
**DNV GL rules for classification – Ships**  
**DNVGL-OS-B101 – Metallic materials**

and the following particulars:

<b>Product</b>	<b>Pipes</b>
<b>Application area</b>	<b>Pipes for pressure systems, Pipes for low-temperature service</b>
<b>Steel type</b>	<b>Carbon and carbon-manganese</b>
<b>Manufacturing method</b>	<b>Seamless</b>
<b>Max. outer diameter</b>	<b>See page 2</b>
<b>Max. wall thickness</b>	<b>See page 2</b>
<b>Heat treatment condition</b>	<b>See page 2</b>
<b>Additional approval conditions</b>	<b>See page 2</b>

Manufacturer(s) approved by this certificate is/are accepted to deliver according to DNV GL, DNV and GL rules. Materials to be applied to DNV GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2021-02-23**

for **DNV GL**

This Certificate is valid until **2023-12-31**.

DNV GL local station: **Galatz**

Approval Engineer: **Christian Wildhagen**

**Thorsten Lohmann**  
**Head of Section**

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Job Id: **263.11-004215-3**  
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## Particulars of the approval

**Pipes for pressure systems <sup>3)</sup>**  
**Pipes for low-temperature service <sup>4)</sup>**

<b>Steel type</b>	<b>Manufacturing method <sup>1)</sup></b>	<b>Max. outer diameter [mm]</b>	<b>Max. wall thickness [mm]</b>	<b>Heat treatment condition<sup>2)</sup></b>
C and C-Mn	HFS	508	50	N+QT

Remarks:

- 1) HFS: hot finished seamless
- 2) N+QT: Normalized followed by quenched and tempered
- 3) Pipes for pressure systems  
Suitable pipe grades shall be selected from the following recognized standards:  
ISO 9329 Parts 1 and 2, ISO 9330 Parts 1 and 2, EN 10216 Parts 1 to 3, EN 10217 Parts 1 to 3, EN 10305 Part 1 and 2, ASTM A53, ASTM A106, ASTM A135, ASTM A335, JIS G3454, JIS G3455, JIS G3456 or JIS G3458, API 5L, ISO 3183
- 4) Pipes for low-temperature service  
Suitable pipe grades shall be selected from the following recognized standards:  
ISO 9329 Part 3, ISO 9330 Part 3, EN 10216 Part 4, EN 10217 Part 6, ASTM A333, ASTM A334 or JIS G3460

Special conditions:

Including automatic non-destructive testing in place of hydraulic testing according to relevant piping standard