



# APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:  
**AMMM00002FJ**  
Revision No:  
**1**

This is to certify:

That

**ALCHEMIA S.A.**  
**Oddzial Walcownia Rur Andrzej**  
**47-120 Zawadzkie, ul. Lubliniecka 12,**  
**Poland**

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

in accordance with  
**DNV rules for classification – Ships**

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, Alloy</b>
<b>Manufacturing method</b>	<b>Seamless, hot formed/cold formed</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>

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 classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2022-02-08**

for **DNV**

This Certificate is valid until **2024-12-31**.

DNV local station: **Katowice**

Approval Engineer: **Stefan Röhr**

**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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.



## Particulars of the approval

### Pipes for pressure systems

Steel type /grade <sup>2)</sup>	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition
C and C-Mn	HFS, CFS	114.3	10	acc. standard
Alloy	HFS, CFS	114.3	10	acc. standard

### Pipes for low-temperature service

Steel type /grade <sup>3)</sup>	Manufacturing method <sup>1)</sup>	Max. outer diameter [mm]	Max. wall thickness [mm]	Heat treatment condition
C and C-Mn	HFS, CFS	114.3	10	acc. standard
Alloy	HFS, CFS	114.3	10	acc. standard

#### Remarks:

- <sup>1)</sup> HFS: Hot finished seamless; CFS: Cold finished seamless
- <sup>2)</sup> Suitable pipe grades shall be selected from the following recognised 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
- <sup>3)</sup> Suitable pipe grades shall be selected from the following recognised standards:  
 ISO 9329 Part 3, ISO 9330 Part 3, EN 10216 Part 4, EN 10217 Part 6, ASTM A333, ASTM A334 or JIS G3460