

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

ALCHEMIA S.A.
Oddzial Walcownia Rur Andrzej
Zawadzkie,
Poland

is an approved manufacturer of
Steel Pipes and Fittings

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

Product	Pipes
Application area	Pipes for pressure systems, Pipes for low-temperature service
Steel type	Carbon and carbon-manganese, Alloy
Manufacturing method	Seamless, hot formed / cold formed
Max. outer diameter	114.3 mm
Max. wall thickness	10.0 mm
Heat treatment condition	See page 2
Additional approval conditions	See page 2

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 **2019-02-18**

for **DNV GL**

This Certificate is valid until **2021-12-31**.

DNV GL local station: **Katowice**

Approval Engineer: **Torben Schälicke**

.....
Thorsten Lohmann
Head of Section



Particulars of the approval

Pipes for pressure systems

Pipes for low-temperature service

Steel type /grade 2)3)	Manufacturing method ¹⁾	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:

- 1) HFS: hot finished seamless
CFS: cold finished seamless
- 2) Pipes for pressure systems
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
- 3) Pipes for low-temperature service
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