



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM00001GN
Revision No:
3

This is to certify:

That
KOREA STEEL CO., LTD. (Noksan Works)
84, Noksansandan 407-ro, Gangseo-gu, Busan,
Republic of Korea

is an approved manufacturer of
Rolled Steel Products

in accordance with
DNV rules for classification – Ships
DNV-OS-B101 – Metallic materials, Edition July 2021

and the following particulars:

Application area	Normal strength steel, High strength steel
Products	Structural sections, Bars
Manufacturing method	Electric arc furnace Continuous casting
Max. thickness	See page 2
Heat treatment condition	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 classed object shall fulfill the material requirements in the applicable DNV class rules.

Issued at **Hamburg** on **2021-10-21**

for **DNV**

This Certificate is valid until **2023-10-30**.

DNV local station: **Gimhae Station**

Approval Engineer: **Andreas Koch**

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Thorsten Lohmann
Head of Section

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Particulars of the approval

Normal strength steel

Grade	Product	Steel making ^{1) 3)}	Fine grain elements	Max. thickness / diameter [mm]	Heat treatment condition ²⁾
VL A	Section, Bar	EAF, BOC, CC	-	15 / 65	AR

High strength steel

Grade	Product	Steel making ^{1) 3)}	Fine grain elements	Max. thickness / diameter [mm]	Heat treatment condition ²⁾
VL A32	Section, Bar	EAF, CC	Al or Al+V	15 / 30	AR
VL A36	Section, Bar		Al+V		
VL A32, VL D32, VL A36, VL D36	Section, Bar	EAF, CC	Al+V	15 / -	AR

Remarks:

- 1) BOC: Basic oxygen converter
EAF: Electric arc furnace
CC: Continuous casting
- 2) AR: as rolled
- 3) Semi-finished products from DNV GL approved manufacturer