



APPROVAL OF MANUFACTURER CERTIFICATE

Certificate No:
AMMM000008R
Revision No:
2

This is to certify:

That

ArcelorMittal Bremen GmbH
Carl-Benz-Straße 30,
28237 Bremen,
Germany

is an approved manufacturer of
Steelmaking and Rolled Steel Products

in accordance with
DNV GL rules for classification – Ships

and the following particulars:

| | |
|---------------------------------|---|
| Application area | Normal strength steel High strength steel |
| Product | Strip |
| Manufacturing method | Basic Oxygen Converter, 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 **2021-09-01**

for **DNV**

This Certificate is valid until **2024-06-30**.

DNV local station: **Bremerhaven**

Approval Engineer: **Stefan Röhr**

Thorsten Lohmann
Head of Section

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Particulars of the approval

Normal strength steel

| Grade | Product | Steel making ¹⁾ | Fine grain elements | Max. thickness [mm] | Heat treatment condition ²⁾ | Z-quality |
|------------------------|---------|----------------------------|---------------------|---------------------|--|-----------|
| VL A, VL B, VL D, VL E | Strip | BOC, CC | Al + Ti | 20 | CR | --- |

High strength steel

| Grade | Product | Steel making ¹⁾ | Fine grain elements | Max. thickness [mm] | Heat treatment condition ²⁾ | Z-quality |
|--------------------------------|---------|----------------------------|---------------------|---------------------|--|-----------|
| VL A32, VL A36, VL D32, VL D36 | Strip | BOC, CC | Al + Ti | 20 | CR | --- |
| VL A32, VL A36, VL D32, VL D36 | Strip | BOC, CC | Al + Nb | 20 | TM | --- |

Steels acc. to other standards

| Grade | Product | Steel making ¹⁾ | Fine grain elements | Max. thickness [mm] | Heat treatment condition ²⁾ | Z-quality |
|--|---------|----------------------------|---------------------|---------------------|--|-----------|
| Steel acc. to EN 10025-2 ³⁾ | | | | | | |
| S235JR, S235J0, S235J2, S275JR, S275J0, S275J2, S355JR, S355J0, S355J2, S355K2 | Strip | BOC, CC | Acc. to standard | 20 | Acc. to standard | --- |

Remarks:

- 1) BOC: Basic Oxygen Converter; CC: Continuous Casting
- 2) CR: Controlled rolled; TM: Thermo-mechanical rolling
- 3) Certification of any material applied to classed object shall fulfil the applicable material requirements in the DNV GL class rules