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CERTIFICATE OF APPROVAL OF MANUFACTURERS OF MATERIALS

No. **FAB011223XB/001**

This is to certify that the manufacture of the product identified below is in compliance with the applicable requirements of the RINA Rules for the Approval of Manufacturers of Materials.

Description	**Normal strength and higher strength hull steel plates**
Type	**A ; B ; D ; AH32 ; AH36** **STEELMAKING** **SEMI-FINISHED PRODUCTS** **HOT ROLLED COILS AND PLATES FROM COILS**
Applicant	**Arcelormittal Brasil S.A - Arcelormittal Brasil** **Av Brigadeiro Eduardo Gomes, 526, Polo Industrial Tubarão, Serra, Espirito Santo, Brazil** **29160-904 Serra (ESPÍRITO SANTO)** **BRAZIL**
Manufacturer *Place of manufacture*	**Arcelormittal Brasil S.A - Arcelormittal Brasil** **Av Brigadeiro Eduardo Gomes, 526, Polo Industrial Tubarão, Serra, Espirito Santo, Brazil** **29160-904 Serra (ESPÍRITO SANTO)** **BRAZIL**
Reference standards	**RINA Rules for the approval of manufacturers of materials**

Issued in **RINA Brazil Marine** on **April 4, 2023**. *This Certificate is valid until* **April 26, 2028**

DocuSigned by:
0182933DC26F420...

RINA Services S.p.A.
Alex Medawar

This certificate consists of this page and 1 enclosure

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APPROVAL CONDITIONS

Steel making : BOC Basic Oxygen converter

Casting process: CC Continuous casting

Deoxidation practice, condition of supply and thickness:

Steel grades	Deoxidation practice and fine grained elements	Condition of supply and max. thickness
A - B	Si + Al killed	As rolled – 19 mm
D	Si + Al killed	As rolled – 16 mm
AH32	Si + Al killed	As rolled – 19 mm
AH36	Si + Al killed	As rolled – 16 mm
Carbon, carbon-manganese (Normal Strength)	Si + Al killed	Slabs - 250 mm
Carbon, carbon-manganese (Higher Strength)	Si + Al killed	Slabs - 250 mm

Survey conditions:
The plates are to be in compliance in all respects with the relevant RINA rules and are to be tested accordingly.

General conditions for the approval
-The approval is granted on condition that the RINA Rules for the approval, manufacture, testing and certification of materials are complied with in all respects.
-RINA is to be notified of any change of materials, manufacturing process, quality control routines that may affect the validity of this certificate.

RINA Brazil Marine April 4, 2023

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