



MARINE DIVISION

Certificate number: 09787/C0 BV

File number: MAT 2838

Product code: 8999H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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APPROVAL CERTIFICATE for MATERIALS

This certificate is issued to

ARCELORMITTAL BRASIL (AM TUBARAO)

Serra - ES - BRAZIL

for the type of product

SEMI-FINISHED PRODUCTS

Continuous cast slabs for rolling in steel grade A, B, D, E, AH32, DH32, EH32, AH36, DH36, EH36

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of Marine Units

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 26 Feb 2019

For BUREAU VERITAS,

At BV RIO DE JANEIRO, on 26 Feb 2014,

Francisco Assis



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Continuous cast slabs to be rolled in stel grade A, B, D, E, AH32, DH32, EH32, AH36, DH36, EH36.
Typical dimensions : Thickness 250mm - Width 1880mm

Steel type	Deoxydation & Refining	Delivery conditions
A, B, D	Killed and Al treated	As cast.
E	Killed and Al+Nb+Ti treated	As cast.
AH32, DH32	Killed and Al treated	As cast.
AH36, DH36	Killed and Al treated	As cast.
EH32	Killed and Al+Nb+Ti treated	As cast.
EH36	Killed and Al+Nb+Ti treated	As cast.

Steelmaking by Basic Oxygen process.

2. DOCUMENTS AND DRAWINGS :

Nil.

3. TEST REPORTS :

- "Continuous casting test approval plan - AH36/DH36 - July 1999" issued by Companhia Siderurgica de Tubarao and dated July 1999.
- "Test report" issued by Dongkuk Steel Mill Co., Pohang Works and dated October 1999.
- "Test report" issued by Dongkuk Steel Mill Co., Pohang Works and dated 18 August 2005.
- "CST databook - slabs production May 14-15th, 2005" issued by Companhia Siderurgica de Tubarao.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

The specification of each steel grade is to be agreed between Companhia Siderurgica de Tubarao (CST) and the rolling mill according to the type of steel and rolling process approved by Bureau Veritas at the rolling mill.

5. PRODUCTION SURVEY REQUIREMENTS :

The slabs are to be supplied by Arcelormittal Brasil (AM Tubarao) in compliance with the type described in this certificate.

This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

Arcelormittal Brasil (AM Tubarao) has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for the Classification of Steel Ships.

7. OTHERS :

This certificate replaces approvals numbers AC/BR-03-01-234, AC/BR-03-02-264, AR/BR-03-01-248, AR/BR-03-02-274, 09787/A0 BV; 09787/A1 BV and 09787/B0 BV.

*** END OF CERTIFICATE ***