



Marine & Offshore

Certificate number: 54496/A0 BV

File number: MAT 3115-2018

Product code: 9007I

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

GERDAU ACOMINAS S/A - ON GERDAU ACOMINAS

Minas Gerais - BRAZIL

for the type of product

HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades AH32, DH32, AH36 and DH36 including Z properties.

Requirements:

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

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 20 Sep 2024

For Bureau Veritas Marine & Offshore,
At BV RIO DE JANEIRO, on 20 Sep 2019,
Lando Ribeiro



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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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 :

Hot rolled plates.

Steel grade	Deoxydation practice & Refining	Delivery conditions/Thickness
AH32, DH32 Z25/Z35	Killed and fine grain treated with Nb+Ti	Thermomechanical Rolling (TMCP) with thickness from 6.00mm to 25.40mm
	Killed and fine grain treated with Nb+Ti+V	Thermomechanical Rolling (TMCP) with thickness from 25.41mm to 50.80mm
AH36, DH36 Z25/Z35	Killed and fine grain treated with Nb+Ti+V	Thermomechanical Rolling (TMCP) with thickness from 6.00mm to 50.80mm

Steelmaking by Basic Oxygen Linz-Donawitz Converter. Continuous casting.

2. DOCUMENTS AND DRAWINGS :

As per document issued by Gerdau Acominas S/A.

- "MQPS-BV D, AH32, DH32, AH36, DH36 Revision 01" dated 21 September 2018.

3. TEST REPORTS :

As per documents issued by Gerdau Acominas S/A.

- "Final report of homologation of plates grade AH32, DH32, AH36 and DH36 with specified through thickness properties" dated 12 August 2019.

- UT Inspection reports, submitted 18 September 2019.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The steel plates are to be supplied by Gerdau Acominas S/A in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

6. MARKING OF PRODUCT :

As per Bureau Veritas Rules for Classification.

In addition to the material grade designation, products are to be marked with the symbol Z25/Z35, as appropriate.

7. OTHERS :

Nil.

*** END OF CERTIFICATE ***