



Marine & Offshore  
Division

Certificate number: 27792/A1 BV

File number: MAT 1147-2012

Product code: 90071

*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*

**VITKOVICE STEEL, a.s.**  
Ostrava - CZECH REPUBLIC

*for the type of product*

### HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS

Hot rolled plates in steel grades AH32, DH32, EH32, AH36, DH36 and EH36 with Z25 and Z35 grades

**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: 02 May 2017**

**For BUREAU VERITAS,**

At BV PRAGUE, on 24 Jun 2015,

Martin Dlouhy



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 & Offshore 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 :

Hot rolled plates

| Steel grade  | Deoxydation practice & Refining                              | Delivery conditions                       |
|--|--|---|
| AH32 - AH36  | Killed and fine grain treated with Al                        | As Rolled (AR) with thickness up to 40 mm |
| AH32 - AH36<br>DH32 - DH36<br>EH32 - EH36<br>(Z25-Z35) | Killed and fine grain treated with Al or<br>Al+Nb or Al+Nb+V | Normalized (N) with thickness up to 60 mm |

Steelmaking by Basic Oxygen Converter.  
Continuous Casting.

### 2. DOCUMENTS AND DRAWINGS :

Nil.

### 3. TEST REPORTS :

- "Test report No. 1/2012 BV, NORMAL STRENGTH HULL STEEL ROLLED PRODUCTS -Plates of Steel Grades A, B, D and E with Z25 and Z35 grades and HIGHER STRENGTH HULL STEEL ROLLED PRODUCTS- Plates of Steel Grades AH32, DH32 and EH32, AH36, DH36 and EH36 with Z25 and Z35 grades" issued by EVRAZ VITKOVICE STEEL dated 22 February 2012.

- "Process Capability Analysis of Normal Strength and Higher Strength Hull Steel plates grades AH36, DH36, EH36 Thickness up to 50mm-Mechanical properties and chemistry" issued by EVRAZ VITKOVICE STEEL dated 18 November 2011.

### 4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

### 5. PRODUCTION SURVEY REQUIREMENTS :

The steel plates are to be supplied by Vitkovice Steel, a.s. in compliance with the type and the requirements described in this certificate.

This type of product is within the category IBV of Bureau Veritas Rule Note NR320.  
BV product certificate is required.

### 6. MARKING OF PRODUCT :

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

### 7. OTHERS :

This certificate replaces approvals N°AR/CS-01-03-266 and 27792/A0.

\*\*\* END OF CERTIFICATE \*\*\*