



Marine & Offshore

**BUREAU
VERITAS**

APPROVAL CERTIFICATE

This certificate is issued

Aleris Aluminum (Zhenjiang)
ZHENJIANG - CHINA

for the type of product

WROUGHT ALUMINIUM ALLOY

Rolled plates in aluminium alloy

Requirements:

Bureau Veritas Rules on Materials and Welding for the Classification of

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did not find any non-compliance
above which was found to comply with the relevant requirements mentioned above.
This certificate is a renewal of certificate N° 36933/A0 BV expiring on 20/01/2017*

This certificate will expire

For Bureau Veritas Marine & Offshore,
At BV SHANGHAI, on 03 Dec 2018,
Jennifer Zhang

This certificate remains valid until the date stated above, unless cancelled or revoked, provided that the product remains satisfactory in service. This certificate will not be valid if the product(s) which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. For the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being put into service. This certificate is issued within the scope of the General Conditions of Bureau Veritas. Any Person not a party to the contract pursuant to which this document is delivered may not be held liable for liability arising out of errors or omissions which may be contained in said document, or for the actions of the Society or of its Agents in establishment or issuance of this document, and in connection with it.

The electronic version is available at: <http://www.veristarpm.com/veristarnb/jsp/veristarpm/bv/mod/ad/e/1533/june/2017>

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Aluminum alloys rolled products.

Aluminium grade	Type of product	Delivery conditions
5083	Plates	O/H111 with thickness from 10 to 50mm H112 with thickness from 10 to 50mm H116 with thickness from 10 to 50mm
5086	Plates	H116 with thickness from 10 to 50mm

Plates are hot rolled and heat treated as applicable.

2. DOCUMENTS AND DRAWINGS :

Documents issued by Aleris Aluminium (Zhenjiang) Co., Ltd.:

- "Work procedure SWP-No 1330009E Revision 01/08/13".
- "Organization Chart Zhenjiang Plant" dated 22 March 2013.
- "Test Plan for Approval of Manufacturing Process of Aluminium Alloys", "Production and Process Information" dated 2013.
- "Standard Working procedure for quality management system", "Aleris China - general introduction", "Flow chart plates, hot rolled", "Information on manufacturing route and equipment for aluminium Alloys".

3. TEST REPORTS :

Documents issued by Aleris Aluminium (Zhenjiang) Co., Ltd.:

- "Chemical analysis ladle" and "Chemical analysis products" dated 31 July 2013 and 23 October 2013.
- "Mechanical and corrosion test reports for alloy 5083 O/H111" dated 2013.
- "Mechanical and corrosion test reports for alloy 5083 H112" dated 2013.
- "Mechanical and corrosion test reports for alloy 5083 H116" dated 2013.
- "Mechanical and corrosion test reports for alloy 5086 H116" dated 2013.
- "Metallographic test for alloy 5083 H116" dated 22 October 2013.
- "Metallographic test for alloy 5086 H116" dated 16 and 18 October 2013.
- "Hydrogen Measurement report" dated 23 October 2013.

4. APPLICATION / LIMITATION :

As per Bureau Veritas Rules for Classification.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The aluminium alloy plates are to be supplied by Aleris Aluminium (Zhenjiang) Co., Ltd. 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.

7. OTHERS :

This certificate replaces approval No.36933/A0 BV.

*** END OF CERTIFICATE ***