



Marine & Offshore

Certificate number: 50786/A2 BV File number: MAT 108369-2017

Product code: 9013I

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

POSCO (Zhangjiagang) Stainless Steel Co., Ltd

ZhangJiaGang - CHINA

for the type of product

STAINLESS STEEL ROLLED PRODUCTS

Plates and coils made in stainless steels.

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: 21 Dec 2022

For Bureau Veritas Marine & Offshore, At BV SHANGHAI, on 17 Jan 2020, Jennifer Zhang





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 Ventas Manine & Offshore Should the specified regulations or standards be amended during the validity of this certificate is issued within the scope of the General Conditions of Bureau Vertas Manine & Offshore Should the specificate is resued within the scope of the General Conditions of Bureau Vertas Manine & Offshore shallbe on the internet site wave verstat com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Vertas Marine & Offshore for any inability ansing 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

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Hot rolled plates and coils in austenitic and duplex stainless steel.

Type of product	Steel grade	Thickness / Width range	Delivery condition
Plates	304/304L 316/316L 321	16 - 80 mm / 1000-1500 mm	Solution annealed *
Coils	304/304L 316/316L 321	2.8 -15.5 mm/ 1000-1600 mm	Solution annealed
	2205 (ASTM A240)	9.8 mm	Solution annealed
Coils and plates from coils	S31254 (254SMo)	4.0-7.95 mm / 1000-1500 mm	Solution annealed
	UNS \$32750	4.0-10.0 mm / 1000-1500 mm	Solution annealed

Steelmaking by Electric Arc Furnace (EAF) and AOD converter. Continuous casting.

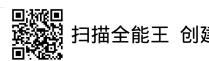
- Cold rolled coils and sheet in austenitic and duplex stainless steel.

Type of product	Steel grade	Thickness / Width range	Delivery condition
Coils/Sheets	304/304L 316L (ASTM A240)	0.3-3mm/ 1000-1600mm	Solution annealed
	S31254 (254SMo)	0.6-2.95 mm / 1000-1219 mm	Solution annealed
	UNS S32750	1.0-3.0 mm / 1000-1500 mm	Solution annealed

Steelmaking by Electric Arc Furnace (EAF) and AOD converter. Continuous casting. Coils and sheets are made from hot rolled coils. De-coiling/coiling, cold rolling, and pickling operations are made at Cold rolling plant 1#, and/or Cold rolling plant 2#, as applicable.

2. DOCUMENTS AND DRAWINGS:

- As per following documents issued by POSCO (Zhangjiagang Pohang) Stainless Steel Co., Ltd.: -"Test plan for the approval manufacturers of rolled steel plates, coils" dated August 2016.
- -"Application document for steelmaking and steel plates, coils Work approval by BV" dated April 2016.
 "Application document for extension approval steel plate and cold rolled coil by BV" dated July 2018, and annexes from No.2 to No.8 submitted on December 2018.
- -"BV Test program for Extension Approval", file No. TP-BV-201901, dated June 2019,
- -"Application Document for Extension Approval", dated July 2019.



^{*} Plates are heat treated by Kunshan Daekyung Stainless Steel Co., Ltd.

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3. TEST REPORTS:

As per following documents issued by POSCO (Zhangjiagang Pohang) Stainless Steel Co., Ltd.:

- -"Test report for steel coil grade 321, T=15.5/7.7mm"; "Test report for steel coil grade 2205, T=9.8/5.7mm"; "Test report for steel coil grade 3161. T=15.5/7.7mm"; "Test report for steel plate grade 3161. T=15.5/7.7mm"; "Test report for steel plate grade 321,T=80/40mm"; "Test report for steel plate grade 321,T=
- "Test reports for cold rolled coil & plate from cold rolled coil" dated October 2018.
- -"Test reports for cold rolled coil and plate from cold rolled coil Steel grade S31254", report No.: TP-BV-201903, dated December 2019.
- -"Test reports for cold rolled coil and plate from cold rolled coil Steel grade S32750", report No.: TP-BV-201904, dated December 2019.
- -"Test reports for hot rolled coil and plate from hot rolled coil Steel grade S31254", report No.: TP-BV-201901, dated December 2019.
- -"Test reports for cold rolled coil and plate from cold rolled coil Steel grade S32750", report No.: TP-BV-201902, dated December 2019.
- -"Test reports for weldability test Steel grade S32750", report No.: TP-BV-201905, dated December 2019.

4. APPLICATION / LIMITATION:

As per Bureau Veritas Rules for Classification.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The rolled products are to be supplied by POSCO (Zhangjiagang Pohang) Stainless Steel 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 approvals No.50786/A0 BV and No.50786/A1 BV.

*** END OF CERTIFICATE ***

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