

COPY

**ABS**

WELDING CONSUMABLE CERTIFICATE

Certificate No.: 083238-3659307-002_____

Report No.: NA3659307_____

Port of: Nagasaki, Japan_____

Date: 21 June 2019_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF NIPPON STEEL WELDING & ENGINEERING CO., LTD., ATTEND THE PLANT AT HIKARI, YAMAGUCHI, JAPAN, ON THE 08TH DAY OF MAY, 2019 AND ON SUBSEQUENT DATES, IN ORDER TO CARRY OUT A PLANT SURVEY OF FACILITIES AND ASSOCIATED QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES AND TO WITNESS AND REPORT ON THE ANNUAL APPROVAL TESTING OF WELDING CONSUMABLES; AND,

THAT THE FACILITY IS CONSIDERED CAPABLE OF PROVIDING AN ACCEPTABLE UNIFORM PRODUCT, AND THAT EACH WELDING CONSUMABLE LISTED BELOW WAS FOUND IN COMPLIANCE WITH THE SPECIFICATION INDICATED AND IS ELIGIBLE TO BE PLACED ON THIS BUREAU'S APPROVED WELDING CONSUMABLES LIST IN THE FLUX CORED ARC WELDING SECTION:

TRADE NAME	SPECIFICATION	GRADE OR CLASS	SHIELDING GAS	POSITION	CURRENT/ POLARITY	SIZE
SF-316L	-	Mfr's guaranteed Min. properties: T.S 510 N/mm ² Y.P 205 N/mm ² , EL 35%, CVN 27J at -20°C. Chemical Composition: C 0.04, Si 1.0, Mn 0.5-2.5, P 0.04, S 0.03, Cr 17.0- 20.0, Ni 11.0-14.0, Mo 2.0-3.0	CO ²	F, HF, V F, HF	DCEP	0.9 - 1.2 1.6
SF-309MoL	-	Mfr's guaranteed Min. properties: T.S 510 N/mm ² Y.P 205 N/mm ² , EL 20%, CVN 27J at -20°C. Chemical Composition: C 0.04, Si 1.0, Mn 0.5-2.5, P 0.04, S 0.03, Cr 22.0- 25.0, Ni 12.0-14.0, Mo 2.0-3.0	CO ²	F, HF, V F, HF	DCEP	0.9 - 1.2 1.6
SF-329J3LP	AWS	AWS A5.22 E2209T1-1	CO ²	ALL	DCEP	1.2
SF-1-EX	ABS	2YSA H5	CO ²	ALL Vd	DCEP	1.2 - 1.6

Note: This Certificate evidences compliance with one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping and is issued solely for the use of the Bureau, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, guides, standards or other criteria of American Bureau of Shipping as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a fuller description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of American Bureau of Shipping who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.

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SM-1F·EX	ABS	2YSA H5	CO ²	F, HF	DCEP	1.2 - 1.6
SF-1·E	ABS	3Y400SA H5	CO ²	ALL Vd	DCEP	1.0 - 1.4

Position Note: F-Flat, H-Horizontal, V-Vetrical Upward, Vd-Vetrical Down, HF-Horizontal Fillet, All-F, H, V, OH

Kobayashi, Elji, SURVEYOR



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