

**COPY****WELDING CONSUMABLE CERTIFICATE**

Certificate No.: 083254-3686712-002_____

Report No.: YO3686712_____

Port of: Kanto (Yokohama), Japan_____

Date: 07 August 2019_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF NIPPON STEEL WELDING & ENGINEERING CO., LTD, ATTEND THEIR PLANT AT NARASHINO-CITY, CHIBA PREF., JAPAN, ON THE 18TH DAY OF JUNE, 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-1 • EX	ABS	2YSA H5	CO2 (FC)	All, V-down	DCEP	1.2-1.6 mm
SF-1	ABS	2YSA, 2Y400SA H5	CO2 (FC)	All, V-down	DCEP	1.2-1.6 mm
SM-1	ABS	2YSA H10	CO2(FC)	F, H	DCEP	1.4-1.6 mm
SF-1F • EX	ABS	2YSA H5	CO2 (FC)	F	DCEP	1.2-1.6 mm
SM-1F	ABS	2YSA, 2Y400SA H5	CO2(FC)	F	DCEP	1.2-1.6 mm
SM-1F (x2)	ABS	2YA, 2Y400A	CO2(FC)	HF	DCEP	1.6 mm
SF-36E	ABS	3YSA H5*	CO2(FC)	All	DCEP	1.2-1.4 mm
*Manufacturer's guaranteed Min. CVN 34 J at -60 deg. C.						
SF-36F	ABS	3YSA H5*	CO2(FC)	F	DCEP	1.2-1.4 mm
*Manufacturer's guaranteed Min. CVN 34 J at -60 deg. C.						
SF-3AM	ABS	5YQ460SA H5	80%Ar- 20%CO2 (FC)	All	DCEP	1.2-1.6 mm
SM-3EF (x2)	ABS	3Y400A	CO2 (FC)	HF**	DCEP	1.6 mm
**Only for tandem fillet welding.						
SM-47A	ABS	5YQ460SA H5	80%Ar- 20%CO2 (FC)	All	DCEP	1.2 mm
SF55RS	ABS	2YSA H5	CO2 (FC)	F, V, H	DCEP	1.2 mm

Kenji Iwano, SURVEYOR



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.