



WELDING CONSUMABLE CERTIFICATE

Certificate No.: 075277-3700093-001_____

Report No.: KO3700093_____

Port of: KOBE, JAPAN_____

Date: 31 OCTOBER 2019_____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF KOBE STEEL, LTD. IBARAKI PLANT, JAPAN, ATTEND THEIR PLANT AT IBARAKI & FUJISAWA, JAPAN, ON THE 19TH DAY OF JULY, 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
DW-50LSR	ABS	5Y400SA (H5)*	C1	All	DCEP	1.2 mm
DW-55LSR	ABS	5YQ420SA (H5)*	C1	All, V-Down, HF	DCEP	1.2-1.4
DW-55LSR	ABS	4Y400SA (H5)*	C1	All, V-Down, HF	DCEP	1.2-1.4
DW-60	**	**	C1	All, V-Down	DCEP	1.2-1.6
** Manufacturer's guaranteed min. properties: T.S. 590-740 N/mm ² , Y.P. 490N/mm ² , El. 20%, CVN 47 Joule at minus 30 Cen. Deg.						
DW-A50	ABS	3YSA (H5)	M21(80%Ar-20%CO ₂)	All, V-Down	DCEP	1.1-1.6(0.045-1/16")
DW-A62L	ABS	5YQ500SA(H5)	M21(80%Ar-20%CO ₂)	All, HF	DCEP	1.2
DW-A81Ni1	ABS	5YQ420SA (H5)	M21(80%Ar-20%CO ₂)	F, H, V-Up, HF	DCEP	1.2
DW-A81Ni1	ABS	4Y400SA (H5) **	M21(80%Ar-20%CO ₂)	F, H, V-Up, HF	DCEP	1.2
** Manufacturer's guaranteed properties: CVN 47 Joule at minus 60 Cen. Deg.						
DW-Z1S	ABS	2YSA (H10)	C1	All	DCEP	1.2
MX-100	ABS	2YSA	C1	F	DCEP	1.2-2.0

TO BE CONTINUED



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.

Certificate No.: 075277-3700093-002
 Report no.: KO3700098
 Port of: KOBE, JAPAN
 Date: 31 OCTOBER 2019

TRADE NAME	SPECIFICATION	GRADE OR CLASS	SHIELDING GAS	POSITION	CURRENT/ POLARITY	SIZE
MX-100T	ABS	3YSA (H5)	C1	All	DCEP	1.2-1.4 mm
MX-100E	ABS	3YSA,3Y400SA	C1	F, H	DCEP	1.2-2.0
MX-100ER	ABS	3Y400SA (H5)	C1	F, H, HF	DCEP	1.2
MX-200KP	ABS	2YSA,2Y400SA (H5)	C1	H-F	DCEP	1.2 - 1.6
MX-200KP (X2)	ABS	2YA,2Y400A (H5)	C1	H-F	DCEP	1.4 - 1.6
MX-A80L	ABS	5YQ690SA(H5)	M21(80%Ar-20%CO2)	F, H, HF	DCEP	1.2(0.045")
MX-A100	ABS	4YSA(H5)	M21(80%Ar-20%CO2)	F,V-Down, HF	DCEP	1.2 - 1.6
MX-Z210	ABS	2YSA (H5)	C1	F, HF	DCEP	1.2 - 1.4


 T. OKAMOTO, 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.