

Welding Consumable Certificate

Certificate No.: 243387-6626970-001_____

Report No.: 6626970

Port of. Rotterdam, the Netherlands_

Date: 13 October 2024____

THIS IS TO CERTIFY

THAT THE UNDERSIGNED SURVEYOR TO THIS BUREAU DID, AT THE REQUEST OF KOBELCO WELDING OF EUROPE, ATTEND THE PLANT AT HERLEEN, ON THE 26 DAY OF SEPTEMBER, 2024 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 <u>NAME</u>	SPECIFICATION	GRADE <u>OR CLASS</u>	SHIELDING GAS	POSITION	CURRENT/ POLARITY	SIZE
DW-A50	ABS	3YSA H5	80%Ar, 20% CO2	All, V-down	DCEP	1.2-1.6mm
DW-A55L	ABS	3YSA H5	80%Ar, 20%CO2	All, V-down	DCEP	1.0-1.2mm
DW-A55E	ABS	4Y400SA H5	80%Ar, 20% CO2	All, V-down	DCEP	1.2-1.6mm
DW-62L	ABS	5YQ500SA H5	CO2	All	DCEP	1.2mm
DW-A55ESR	ABS	4Y400SA H5	80%Ar, 20% CO2	All, V-down	DCEP	1.2mm
DW-A80L	ABS	4YQ690AS H5*	80%Ar, 20% CO2	All	DCEP	1.2mm
DW-N609SV	26	MG **	100% CO2	F, Vu, HF	DCEP	1.2mm
MX-200E	ABS	4Y400SA (H5)	CO2	PA, PB, PC	DC+(DC EP)	1.2-1.4mm

* Manufacturer's guaranteed 47J at -60degC.

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.

**Manufacturer's guaranteed properties:

 Yield Strength:
 430 MPa

 Tensile Strength:
 690 MPa

 Elongation:
 min 25%

 Charpy Impact:
 min 34J @ -196°C

 Chemical Properties: C max. 0.02%, Si max 0.5%, Mn max 1.0%, P max 0.03%, S max 0.03%, Cu max 0.5%, Ni 50.0 - 63.5%, Cr 14.5 - 16.5%, Mo 15.0 - 17.0%, Fe 4.0 - 7.0%, W 3.0 - 4.5%

M. Zalewski SURVEYOR

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Materials Manufacturer Audits CLS-PRI-00847

CLS-REF-00187 Rev 0

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Manusz P. Zalewski ABS Surveyor