



NIPPON KAIJI KYOKAI

Certificate

OF

TYPE APPROVAL

Approval No. NKY-2198-A
Certificate No. TA211253E

Article: Welding Consumables for High Tensile Steels for Hull
Brand: DW-Z100
Applicant: Kobe Steel, Ltd., Ibaraki Plant
2-19, Higashiunobe-cho, Ibaraki, Osaka, Japan
Manufacturer: Kobe Steel, Ltd., Ibaraki Plant
2-19, Higashiunobe-cho, Ibaraki, Osaka, Japan
Grade: KSW52Y40G(C)
KSW52G(C)H10
Welding Process: Semi-Automatic Welding (MAG Welding)
Welding Positions and Max. Diameter of Wire: See Table 1
Current: DCEP
Shielding Gas: CO₂
Remarks: For annual inspection, mechanical properties are to comply with the requirements specified in Table 2.

Table 1 Welding Positions and Max. Diameter of Wire for Both Grades

Butt Weld		Fillet Weld	
Flat:	1.6mm	Flat:	1.6mm
Horizontal:	1.6mm	Horizontal Vertical:	1.6mm
Overhead:	1.6mm	Horizontal:	1.6mm
Vertical Upward:	1.6mm	Horizontal Overhead:	1.6mm
Vertical Downward:	1.6mm	Overhead:	1.6mm
		Vertical Upward:	1.6mm
		Vertical Downward:	1.6mm

THIS IS TO CERTIFY that the above mentioned welding consumable has been approved by the NIPPON KAIJI KYOKAI in accordance with the requirements of the Society's Rules.

This Certificate will remain in force until 25 June 2022.

Issued at Tokyo on 18 November 2021.



Y. Takao

General Manager

Material and Equipment Department

Note :

- (1) The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.
- (2) This certificate was rewritten because of addition of grade of welding consumable.

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Table 2 Mechanical Properties

Deposited Metal Test				
Tensile Test			Impact Test	
Tensile strength (N/mm ²)	Yield point (N/mm ²)	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
510~660	400 min.	22 min.	0	47

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