



NIPPON KAIJI KYOKAI

Approval No. NKY-2661
Certificate No. TA20860E

Certificate OF TYPE APPROVAL

Article: Welding Consumables for High Tensile Steels for Hull and Steels for Low Temperature Service
Brand: MX-55LF
Applicant: Kobelco Welding of Korea Co., Ltd.
Changwon, Gyeongnam, Korea
Manufacturer: Kobelco Welding of Korea Co., Ltd.
Changwon, Gyeongnam, Korea
Grade: KSW54G(C) and KSWL3G(C)
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.

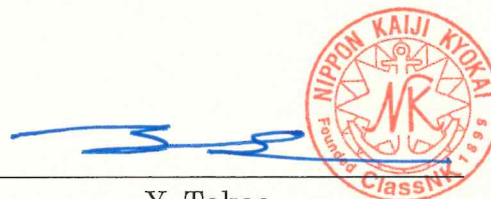
Table 1 Welding Positions and Max. Diameter of Wire for Both Grades

Butt Weld		Fillet Weld	
Flat:	Not Applicable	Flat:	1.6mm
		Horizontal Vertical:	1.6mm
Horizontal:	Not Applicable	Horizontal:	Not Applicable
Overhead:	Not Applicable	Horizontal Overhead:	Not Applicable
		Overhead:	Not Applicable
Vertical Upward:	Not Applicable	Vertical Upward:	Not Applicable
Vertical Downward:	Not Applicable	Vertical Downward:	Not Applicable

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 15 June 2021.

Issued at Tokyo on 28 May 2020.



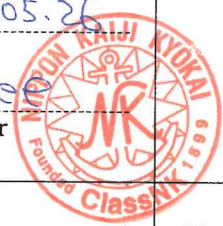
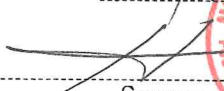
Y. Takao
General Manager
Material and Equipment Department

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 change of the applicant's name and the manufacturer's name.

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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)
490~660	375 min.	22 min.	-60	47

The validity of this certificate has been renewed until <u>2022.06.15</u>. Date: <u>2021.03.31</u>  Surveyor 	The validity of this certificate has been renewed until _____. Date: _____ _____ Surveyor
The validity of this certificate has been renewed until <u>2023.06.15</u>. Date: <u>2022.05.26</u> <u>S.H. Lee</u> Surveyor 	The validity of this certificate has been renewed until _____. Date: _____ _____ Surveyor
The validity of this certificate has been renewed until <u>2024.06.15</u>. Date: <u>2023.06.08</u>  Surveyor 	The validity of this certificate has been renewed until _____. Date: _____ _____ Surveyor
The validity of this certificate has been renewed until <u>2025.06.15</u>. Date: <u>2024.05.23</u>  Surveyor 	The validity of this certificate has been renewed until _____. Date: _____ _____ Surveyor
The validity of this certificate has been renewed until <u>2026.06.15</u>. Date: <u>2025.05.29</u>  Surveyor 	The validity of this certificate has been renewed until _____. Date: _____ _____ Surveyor