



NIPPON KAIJI KYOKAI

Approval No. NKY-3010
Certificate No. TA20864E

Certificate OF TYPE APPROVAL

Article: Welding Consumables for High Tensile Steel used to
Low Temperature Service
Brand: DW-55LSR
Applicant: Kobelco Welding of Korea Co., Ltd.
Changwon, Gyeongnam, Korea
Manufacturer: Kobelco Welding of Korea Co., Ltd.
Changwon, Gyeongnam, Korea
Grade: Manufacturer's Specification (Equivalent to KSW5Y42G(C) H5)
Welding Process: Semi-Automatic Welding (MAG Welding)
Welding Positions and Max. Diameter of Wire: See Table 1
Current: DCEP
Shielding Gas: CO₂
Remark: Mechanical properties are to comply with the requirements specified in
Table 2 and Table 3.

Table 1 Welding Positions and Max. Diameter of Wire

Butt Weld		Fillet Weld	
Flat:	1.2mm	Flat:	1.2mm
Horizontal:	1.2mm	Horizontal Vertical:	1.2mm
Overhead:	1.2mm	Horizontal:	1.2mm
		Horizontal Overhead:	1.2mm
		Overhead:	1.2mm
Vertical Upward:	1.2mm	Vertical Upward:	1.2mm
Vertical Downward:	1.2mm	Vertical Downward:	1.2mm

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 12 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.

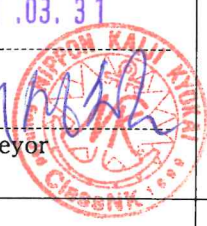
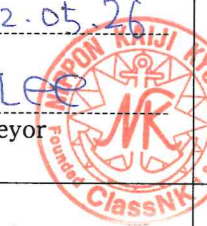
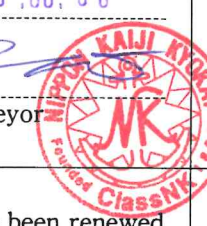
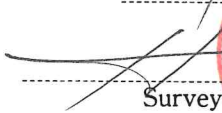
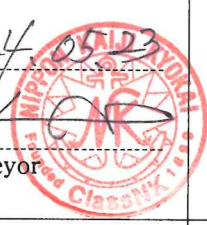
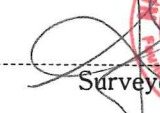
Table 2 Mechanical properties (as welded)

Deposited Metal Test				Butt Weld Test	
Tensile Test			Impact Test	Tensile test	Impact Test
Tensile strength (N/mm ²)	Yield point (N/mm ²)	Elongation (%)	Testing temperature (°C) and Minimum mean absorbed energy (J)	Tensile strength (N/mm ²)	Testing temperature (°C) and Minimum mean absorbed energy (J)
530 ~ 680	420 min.	20 min.	47J at -60°C or 27J at -68°C	530 min.	47J at -60°C or 27J at -68°C

Table 3 Mechanical properties (SR(575°C × 1hour))

Deposited Metal Test				Butt Weld Test	
Tensile Test			Impact Test	Tensile test	Impact Test
Tensile strength (N/mm ²)	Yield point (N/mm ²)	Elongation (%)	Testing temperature (°C) and Minimum mean absorbed energy (J)	Tensile strength (N/mm ²)	Testing temperature (°C) and Minimum mean absorbed energy (J)
530 ~ 680	420 min.	20 min.	47J at -60°C	530 min.	47J at -60°C

Certificate No. TA20864E

The validity of this certificate has been renewed until <u>2022.06.12</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>2023.06.12</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>2024.06.12</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>2025.06.12</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>2026.06.12</u> . Date: <u>2025.05.29</u>  Surveyor 	The validity of this certificate has been renewed until _____ . Date: _____ _____ Surveyor