



# NIPPON KAIJI KYOKAI

## *Certificate*

Approval No. NKY-3222  
Certificate No. TA15921E

OF

### TYPE APPROVAL FOR WELDING CONSUMABLE

Brand : DW-A80L  
Manufacturer : Kobe Steel, Ltd., Fujisawa Plant  
Fujisawa, Kanagawa, Japan  
Kind : Semi-Automatic Welding Consumable  
Purpose : For Quenched and Tempered High Tensile Steels for Structures  
Approval Condition :  
Grade : KSW4Y69G(M2)H5  
Current : DCEP  
Position : Flat, Horizontal, Vertical Upward and Overhead  
Max. Dia. of Wire : F : 1.2mm, H : 1.2mm, VU : 1.2mm, OH : 1.2mm  
Shield Gas : Ar+CO<sub>2</sub>  
Remarks :  
1) Additionally-guaranteed impact test properties:  
Minimum mean absorbed energy at  $-60\text{ }^{\circ}\text{C} \geq 47\text{J}$  for deposited metal.  
2) For annual inspection, test requirement and mechanical properties are  
to comply with Table 1 and Table 2 (see the reverse side).

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 14 January 2016.  
Issued at Tokyo on 15 January 2015.



T. Imamura  
General Manager  
Material and Equipment Department

Note : The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.

Table 1 Test Requirement for Annual Inspection












Kind of test	Test assembly					Kind and number of test specimens to be taken from test assembly
	Welding position	Diameter of wire (mm)	Number	Dimensions	Plate thickness (mm)	Tensile test specimen: 1 Impact test specimen: 2 sets (each set for -40°C and -60°C)
Deposited metal test	Flat	See Note 1)	1	See Note 2)	20	

Notes:

- 1) The diameter of the wire is to be within the range specified by Kobe Steel, Ltd., Fujisawa Plant but not exceeding the maximum diameter approved.
- 2) To be in accordance with the Fig. M6.1, Chapter 6, Part M of the NK Rules.

Table 2 Mechanical Properties for Annual Inspection

Tensile Test			Impact Test	
Tensile strength (N/mm <sup>2</sup> )	Yield point (N/mm <sup>2</sup> )	Elongation (%)	Testing temperature (°C)	Minimum mean absorbed energy (J)
770~940	690 min.	17 min.	-40	69
			-60	47

<p>The validity of this certificate has been renewed until <u>14 JAN 2017</u>.</p> <p>Date: <u>17 DEC 2015</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until <u>14 Jan. 2022</u>.</p> <p>Date: <u>4 Dec 2020</u></p> <p> Surveyor</p> 
<p>The validity of this certificate has been renewed until <u>14 Jan. 2018</u>.</p> <p>Date: <u>16.12.20</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>14 January 2019</u>.</p> <p>Date: <u>20 DEC 2017</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>14 Jan. 2020</u>.</p> <p>Date: <u>4 DEC 2018</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>
<p>The validity of this certificate has been renewed until <u>14 Jan. 2021</u>.</p> <p>Date: <u>4 DEC 2019</u></p> <p> Surveyor</p> 	<p>The validity of this certificate has been renewed until _____.</p> <p>Date: _____</p> <p>_____ Surveyor</p>



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