



Rutile flux cored wire for low temperature application  
 with Ar-CO<sub>2</sub> mixed gas  
 AWS A5.20 E71T-12MJ H8  
 CWB CSA W48-18 E491T-12MJ-H8

## Features and typical fields of application

- 70 ksi class rutile flux cored wire suitable for low temperature service steel down to -50°F applicable to post weld heat treatment (PWHT) at mild condition (e.g. less than 1140F and 3 hours) without substantial degradation of mechanical properties of the weld metal.
- Excellent impact toughness value down to -50°F in the As-Welded condition and aforementioned PWHT condition
- DW-A55EH is designed to be used with 75-80%Ar-bal.%CO<sub>2</sub> shielding gas. It has a wide welding parameter range which makes this product very versatile for all position welding
- The optimized chemical design of the weld metal provides superior mechanical properties suitable for the most demanding industry specifications

## Typical mechanical properties of weld metal per AWS A5.20

PWHT condition	Shielding Gas	0.2% PS (ksi)	TS (ksi)	EI (%)	CVN (ft-lbs)	
					-50°F	-40°F
As Welded	75%Ar-25%CO <sub>2</sub>	81	87	29	93	98
1140°F x 1.5 hr		70	84	31	79	97
1040°F x 3 hr		70	84	32	70	88

## Typical chemical composition of weld metal per AWS A5.20 (%)

Shielding Gas	C	Si	Mn	P	S	Ni
75%Ar-25%CO <sub>2</sub>	0.05	0.63	1.17	0.010	0.007	0.38

## Approvals

CWB, ABS



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## Recommended welding conditions and deposition rate

Wire Dia.	Wire Feed Speed (in/min)	Current (A)	Arc Voltage (V)	Deposition Rate (lbs/hr)	Wire Stick-Out	Shielding Gas flow rate (CFH)
0.045"	140	120	21-24	4.0	5/8-3/4"	40-50
	200	160	23-26	6.0		
	290	200	25-28	8.0		
	330	220	25-28	9.0		
	400	250	26-28	10.5		
1/16"	100	180	22-25	4.5	3/4-1"	40-50
	165	240	23-26	7.0		
	190	260	24-27	8.0		
	250	300	27-29	10.0		
	300	340	28-30	11.5		

Table shown are approximate values that will vary depending on welding conditions (WESO, Cable length etc.).

## Available Products

Wire Dia.	0.045", 1/16"	Package	44 lbs spool
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### DISCLAIMER

- Information in this material, such as chemical compositions and mechanical properties, is typical or an example for explaining the features and performances of our products, and it does not mean guarantee unless otherwise it is specified.
- Information contained herein is subject to change without notice. Please kindly contact Kobelco for latest information.



**WARNING:** This product can expose you to chemicals including Nickel and Titanium Dioxide, which are known to the State of California to cause cancer, and Chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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