

Rutile flux cored wire for carbon steel for general use including seismic application

AWS A5.20 E71T-1C/M H8, 9C/M H8

CWB W48-06 E491 T 9/9M H8

EN ISO 17632-A -T42 2 P C/M 1 H5



## Features and typical fields of application

- Fast freezing slag formula gives DW-50 its excellent weldability not only in horizontal but in vertical and overhead welding.
- DW-50 can be used with 100%CO<sub>2</sub> or 75%Ar-25%CO<sub>2</sub> shielding gas. It has a wide welding parameter range which makes DW-50 very versatile.
- Its low fume emission formula creates a clean welding environment at any welding condition.
- DW-50 now has AWS D1.8 approval, making it a superior choice for seismic applications in the structural steel industry.

### Bead appearance



DW-50, 0.045", vertical upward welding at 64kJ/inch with mixed gas

## Mechanical properties of all-weld metal as per AWS A5.20, D1.8 Structural welding code

Code	Shielding Gas	0.2% PS (ksi)	TS (ksi)	EL (%)	CVN (ft-Lbs)	
AWS A5.20	100%CO <sub>2</sub>	74	84	31	58 at -20°F	79 at -0°F
AWS A5.20	75%Ar-25%CO <sub>2</sub>	81	95	27	50 at -40°F	76 at -4°F
AWS D1.8 High H. Ipt: 30kJ/in	100%CO <sub>2</sub>	76	86	29	113 at +70°F	
AWS D1.8 Low H. Ipt: 79kJ/in	100%CO <sub>2</sub>	65	78	32	102 at +70°F	

## Chemical Composition of all weld metal as per AWS A5.20

Shielding Gas	C	Si	Mn	P	S
100%CO <sub>2</sub>	0.04	0.67	1.29	0.011	0.008
75%Ar-25%CO <sub>2</sub>	0.05	0.81	1.54	0.011	0.008

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Diffusible Hydrogen Content as per AWS A4.3		Approvals
DW-50	4.7 mL/100g	ABS, CWB, LR, DNVGL, AWS D1.8

### 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 (In.)
0.045"	140	120	23-26	4.0	3/4"
	200	160	25-28	6.0	
	290	200	27-30	8.0	
	330	220	27-30	9.0	
	400	250	28-30	10.5	
0.052"	120	140	24-27	3.5	3/4"
	175	180	24-27	5.5	
	265	240	26-28	8.5	
	300	260	27-29	10.0	1"
	395	300	29-31	11.5	
1/16"	100	180	24-27	4.5	3/4"
	165	240	25-28	7.0	
	190	260	26-29	8.0	
	250	300	29-31	10.0	1"
	300	340	30-32	11.5	

### Available Products

Wire Dia.	0.045", 0.052", 1/16"
Package	28Lbs spool, 44Lbs spool, 550Lbs Drum

#### 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).

**KOBELCO WELDING OF AMERICA INC.**

