

# KOBELCO

## FAMILIARC™

# DW-50S

**Meets requirements of  
FEMA 353 and AWS D1.8**



## For Seismic

### Code Data

AWS A5.20 E71T-1CH8,1MH8/ -9CH8, 9MH8

### Outstanding Features

- Meets mechanical properties, diffusible hydrogen contents and packaging requirements of FEMA 353 and AWS D1.8.
- Fast freezing slag formula gives DW-50S its excellent weldability not only in horizontal but in vertical and overhead welding.
- DW-50S can be used with 100%CO<sub>2</sub> or 75%Ar-25%CO<sub>2</sub> shielding gas.
- Its low fume emission formula creates a clean welding environment at any welding condition.

### Typical chemistry of weld metal (100%CO<sub>2</sub> As welded)

Wire size (in.)	Position	Heat Input (kJ/in.)	C	Si	Mn	P	S
0.045	1G	29	0.04	0.67	1.40	0.010	0.011
	3G	73	0.05	0.60	1.32	0.010	0.010
1/16	1G	30	0.04	0.65	1.36	0.010	0.008
	3G	72	0.05	0.61	1.27	0.010	0.008

### Typical mechanical tensile properties of weld metal (100%CO<sub>2</sub> As welded)

Wire size (in.)	Position	Heat Input (kJ/in.)	0.2%P.S (psi)	T.S (psi)	Elongation (%)
0.045	1G	29	91,400	94,700	28
	3G	73	67,400	80,800	31
1/16	1G	30	82,200	90,800	28
	3G	72	68,700	82,100	30

Test method: AWS A5.20

# For Seismic



FAMILIARC™

## DW-50S

AWS A5.20 E71T-1CH8, E71T-1MH8  
E71T-9CH8, E71T-9MH8

### Typical mechanical impact properties of weld metal (100%CO<sub>2</sub> As welded)

Wire size (in.)	Position	Heat Input (kJ/in.)	Impact value (ft-lbs)	
			-20 °F	70°F
0.045	1G	29	-	74
		43	56	-
	3G	73	-	91
1/16	1G	30	-	77
		45	37	-
	3G	72	-	101

Test method: AWS A5.20

### Typical diffusible hydrogen content (100%CO<sub>2</sub>)

Immediately after unpack the package (ml/100g)	After 168 hours exposure 80°F and 80% (ml/100g)
5.4	5.8

Gas chromatography method (AWS A4.3)

### Recommended welding conditions and deposition rate

Wire size (in.)	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	
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	

Tables shown are approximate values that will vary with changes in welding conditions.  
Voltages shown are for 100%CO<sub>2</sub> shielding gas. For 75%Ar-25%CO<sub>2</sub> use two volts less than shown.  
\*DC-Electrode positive \*\*Arc voltage is measured at wire feeder.

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