

Coreweld 80-D2

Coreweld 80-D2 is a metal cored wire equivalent to ER80S-D2 solid wire. Coreweld 80-D2 produces higher deposition rates, better wetting action, with an absence of copper coating on the wire. Coreweld 80-D2 was developed for HSLA steels. This product is capable of single or multiple pass welding.

Specifications

Classifications	ASME SFA 5.36 AWS A5.36 : E80T15_M21A2-G3 ASME SFA 5.28 AWS A5.28 : E80C-G H4
Industry	Process Mobile Equipment Industrial and General Fabrication Automotive

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation	Reduction in Area
75% Ar - 25% CO2				
Stress Relieved 8 hour(s) 635 °C	530 MPa	620 MPa	26 %	68 %
As Welded	530 MPa	620 MPa	26 %	62 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
75% Ar - 25% CO2		
As Welded	-40 °C	31 J
As Welded	-29 °C	46 J
Stress Relieved	-29 °C	34 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Mo
75% Ar - 25% CO2					
0.09	1.6	0.5	0.01	0.01	0.5

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Efficiency (Per)	Deposition Type	TTW Dist	Deposition Rate
75% Ar - 25% CO2							
1.4 mm	200-400 A	26-32 V	665.5-833 cm /min		Full Range	9.5-19.1 mm	
1.4 mm	190 A	26 V	440 cm/min	94 %		15.8 mm	2.5 kg/h
1.6 mm	510 A	36 V	1210 cm/min	99 %		19.1 mm	9.4 kg/h
1.6 mm	290 A	26 V	510 cm/min	95 %		19.1 mm	4.0 kg/h
1.6 mm	230 A	24 V	380 cm/min	91 %		19.1 mm	2.8 kg/h
1.6 mm	370 A	28 V	700 cm/min	96 %		19.1 mm	5.7 kg/h
1.6 mm	430 A	29 V	890 cm/min	99 %		19.1 mm	7.2 kg/h
1.2 mm	260 A	28 V	890 cm/min	97 %		15.8 mm	4.1 kg/h
1.2 mm	330 A	32 V	1270 cm/min	99 %		15.8 mm	5.8 kg/h
0.9 mm	130-260 A	23-29 V	813-1727 cm /min		Full Range	9.5-19.1 mm	
1.4 mm	310 A	27 V	890 cm/min	98 %		15.8 mm	4.9 kg/h
1.6 mm	430 A	32 V	890 cm/min	99 %		19.1 mm	7.2 kg/h

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1.4 mm	410 A	36 V	1330 cm/min	99 %		15.8 mm	7.1 kg/h
1.2 mm	290 A	29 V	1020 cm/min	98 %		15.8 mm	4.6 kg/h
1.2 mm	360 A	33 V	1400 cm/min	99 %		15.8 mm	6.3 kg/h
1.2 mm	170 A	24 V	510 cm/min	94 %		15.8 mm	2.4 kg/h
1.2 mm	200 A	27 V	640 cm/min	95 %		15.8 mm	3.0 kg/h
1.2 mm	390 A	32 V	1650 cm/min	99 %		15.8 mm	7.5 kg/h
1.4 mm	240 A	25 V	640 cm/min	95 %		15.8 mm	3.5 kg/h
1.2 mm	150-350 A	24-32 V	838-1453 cm/min		Full Range	9.5-19.1 mm	
1.6 mm	340 A	29 V	640 cm/min	98 %		19.1 mm	5.6 kg/h
1.6 mm	510 A	33 V	1210 cm/min	99 %		19.1 mm	9.4 kg/h
1.4 mm	340 A	31 V	1020 cm/min	99 %		15.8 mm	5.1 kg/h
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1.2 mm	290 A	27 V	1020 cm/min	98 %		15.8 mm	4.6 kg/h
1.2 mm	230 A	25 V	760 cm/min	96 %		15.8 mm	3.5 kg/h
1.4 mm	420 A	32 V	1400 cm/min	99 %		15.8 mm	7.5 kg/h
1.6 mm	300-500 A	26-34 V	460-846 cm/min		Full Range	9.5-19.1 mm	
1.4 mm	370 A	30 V	1140 cm/min	99 %		15.8 mm	6.2 kg/h
1.4 mm	190 A	24 V	440 cm/min	94 %		15.8 mm	2.5 kg/h
1.4 mm	280 A	28 V	760 cm/min	97 %		15.8 mm	4.2 kg/h
1.6 mm	230 A	26 V	380 cm/min	91 %		19.1 mm	2.8 kg/h
90% Ar - 10% CO₂							
1.4 mm	200-400 A	26-32 V	665.5-833 cm/min		Full Range	9.5-19.1 mm	
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