

Coreweld 88HS Ni1

Coreweld 88-HS Ni1 is recommended primarily for robotic or mechanized high speed welding of sheet steel. Welding speeds up to 90 ipm are possible when welding vertical down. The low slag level of Coreweld 88-HS Ni1 minimizes post weld clean up. For this reason, Coreweld 88-HS Ni1 gives special advantage in applications where post weld coating or painting is specified. Coreweld 88-HS Ni1 is a 1% nickel low alloy metal cored wire designed specifically for high speed welding where a clean weld surface is required. Coreweld 88-HS Ni1 deposits have very few silicon islands and almost no slag at the weld toes.

Specifications

Classifications	SFA/AWS A5.28 : E80C Ni1M H4
Approvals	CWB : E55C-Ni1-H4 CWB : E55C-Ni1-H8 CWB : E55C-Ni1-H8(E80C-Ni1-H8)
Industry	Industrial and General Fabrication Railcars Power Poles

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current	DC+
Diffusible Hydrogen	< 8 ml/100g
Alloy Type	C Mn steel

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
Shielding Gas M21			
As Welded	480 MPa	576 MPa	27 %
Shielding Gas M20			
As Welded	512 MPa	598 MPa	26 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
Shielding Gas M21		
As Welded	-46 °C	37 J
Shielding Gas M20		
As Welded	-46 °C	39 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni
0.053	1.23	0.55	0.016	0.010	0.96

Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	TTW Dist	Deposition Rate
1.2 mm	265-375 A	28-33 V	8.89-13.97 m/min	15.8 mm	3.5-7.5 kg/h
1.2 mm	250-450 A	25-32 V	7.62-16.51 m/min		3.5-7.5 kg/h
1.4 mm	240-430 A	27-36 V	6.35-13.34 m/min	15.8 mm	3.5-7.5 kg/h
1.4 mm	260-450 A	25-32 V	6.35-13.97 m/min		3.5-7.5 kg/h
1.6 mm	290-490 A	27-36 V	5.08-12.07 m/min		4.0-9.4 kg/h
1.6 mm	310-515 A	26-33 V	5.08-12.07 m/min		4.0-9.4 kg/h

Welding Parameters

Amps	Wire Diameter	TTW Dist	Volts	Wire Feed Speed
75% Ar - 25% CO2				
200-360 A	1.2 mm	15.8 mm	27-33 V	635-1397 mm/min

MILD STEEL

GAS-SHIELDED FLUX-CORED WIRES (FCAW/MCAW)



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Welding_Parameters

Amps	Wire Diameter	TTW Dist	Volts	Wire Feed Speed
190-410 A	1.4 mm	15.8 mm	27-36 V	457-1346 cm/min
230-510 A	1.6 mm	19 mm	26-36 V	381-1219 mm/min