

Shield-Bright 308H

FCAW wire for 18%Cr - 8%Ni stainless steel, For all-position welding. Shield-Bright 308H was developed for welding Type 304H stainless steel and can also be used for welding Type 301, 302, and 304 steels. It contains a higher carbon level than 308L filler metals to give greater high temperature strength. The ferrite content is also lower for high temperature service. It has greater ductility than 347 types at high temperatures and for that reason it is sometimes used to weld Types 321 and 347 for service above 750°F(399°C) coupled with high stress. Shield-Bright 308H was designed for welding in all positions and performs particularly well in the vertical position with excellent slag removal.

Specifications

Classifications	SFA/AWS A5.22 : E308HT1-1 SFA/AWS A5.22 : E308HT1-4 JIS Z 3323 : YF 308C KS D 3612 : YF 308C EN ISO 17633-A : T 19 9 H P C1 2 EN ISO 17633-A : T 19 9 H P M21 2 JIS Z 3232 : TS308H-FB1
Industry	Power Generation Petrochemical Industrial and General Fabrication

Welding Current	DC+
Alloy Type	C Cr Ni
Shielding Gas	M21, C1 (EN ISO 14175)

Typical Tensile Properties

Conditional Statement	Yield Strength	Tensile Strength	Elongation
M21 Shielding Gas			
As welded	371 MPa (54 ksi)	580 MPa (84 ksi)	46 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
M21 Shielding Gas		
As Welded	-196 °C (-321 °F)	28 J (21 ft-lb)
As Welded	-29 °C (-20 °F)	50 J (37 ft-lb)
C1 Shielding Gas		
As Welded	-29 °C (-20 °F)	47 J (35 ft-lb)
As Welded	-196 °C (-321 °F)	26 J (19 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr
75% Ar - 25% CO₂				
0.05	1.08	0.87	9.65	19.21

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm (.045 in.)	130-220 A	24-29 V	5.8-14.4 m/min (228-567 in./min)	1.9-4.6 kg/h (4.2-10.1 lbs/h)