MIG 16/8M

Classification

AWS A5.9 : ER16-8-2 ISO 14343-A : G 16 8 2

Description & Applications

High carbon content solid wire with low ferrite for GMAW of high temperature stainless steels like 304H, 316H, 347H. Mainly used for creep resistant construction or assembly with high service temperature up to 650-700°C.

Main applications: Petrochemical or incineration industry, nuclear plant.

Base materials

Austenitic heat resisting steels

UNS	*Alloy*	*EN 10095*	*Material N°*
S30409	304H	X6CrNi18-11	1.4948
S31609	316H	X6CrNiMo17-13	1.4919
S34709	347H	X6CrNiNb18-10	1.4550

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min		0.30	1.0	14.5	7.5	1.0		-			-	-
Max	0.10	0.65	2.0	16.5	9.5	2.0	0.5	-	0.03	0.02	-	-
Type	0.04	0.45	1.8	16.0	8.6	1.2	0.15	0.01	0.02	0.01	0.05	0.08

All Weld Metal Mechanical Properties

	$R_{p0.2}$ (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	320	550	35	-	-
Max				-	-
Type	370	580	38	+20°C	60

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters		Shielding Gas
		Current (A)	Voltage (V)	
GMAW = +	0.8 1.0 1.2 1.6	70 - 180 80 - 220 150 - 320 220 - 380	18 - 26 18 - 28 22 - 32 24 - 34	ISO 14175: M12 (Ar+0.5-5%CO_2) M13 (Ar+0.5-3%O_2) 15-20 l/min

Back shielding with Argon or Nitrogen gas or with copper backing support to avoid “back end” rust phenomena.

FT En-MN35-191118