MIG 18/15

Old reference: MIG 317L

Classification

AWS A5.9 : ER317L
UNS : S31783

ISO 14343-A : G 18 15 3 L

Description & Applications

Solid wire electrode for Gas Metal Arc Welding. Low carbon stainless steel composition with about 3,5% Mo. For welding and cladding on austenitic Cr-Ni-Mo stainless and clad plates. Compared to 316L-grades the higher Mo-content provides better general corrosion resistance, especially to crevice and pitting corrosion in chloride containing solutions.

Main applications: Chemical and petrochemical industries, in refineries, in the food industries and for ship building to weld pipes, tanks...

Base materials

Stainless steel for general use:

UNS	Alloy	EN 10088	Material N°	UGINE
S31603	316L	X2CrNiMo17-12-2	1.4404	UGINOX 18-11 ML
S31653	316LN	X2CrNiMoN17-13-3	1.4429	UGINOX 17-10 M
S31700	317	X5CrNiMo17-13-3	1.4449	
S31703	316LMo	X2CrNimo18-14-3	1.4435	UGINOX 18-13 MS
S31703	317L	X2CrNiMo 18-15-4	1.4438	

Typical Chemical Composition (%)

C	Si	Mn	Cr	Ni	Mo	Cu	P	S	Fe	FN
0.018	0.4	1.4	18.8	13.6	3.5	0.1	<0.03	<0.02	Rem.	~ 10

All Weld Metal Mechanical Properties

$R_{p0,2}$ (MPa)	R_m (MPa)	A_5 (%)
>380	>580	>30

Welding Current & Instructions

Welding mode	Ø wire (mm)	Welding parameters		Shielding Gas
		Pulsed arc (A)	(V)	
MIG = +	0.8 1.0 1.2 1.6	100-150 120-200 140-220 180-260	22-27 24-28 24-28 24-30	Ar+20%He+0.05% CO2 Ar + 2%CO2 18-20 l/min

Ind.11

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