UP 316L

Classification

AWS A5.9 : ER316L ISO 14343-A : S 19 12 3 L

Description & Applications

Low carbon solid wire for submerged arc welding of stainless steels like 316, 316L, or without Molybdenum like 304, 304L. Mainly used for general construction with service temperature from -120°C up to +400°C.

Main applications: Boiler making, piping system, pressure vessels, power plant, chemical and petrochemical industries, refineries, food industries…

Base materials:

Stainless steels for general uses:

UNS	*Alloy*	*EN 10088*	*Material N°*
S31600	316	X5CrNiMo17-12-2	1.4401
S31603	316L	X2CrNiMo17-12-2	1.4404
S30400	304	X5CrNi18-10	1.4301
S30403	304L	X2CrNi18-10	1.4306

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	P	S	Co	N
Min		0.30	1.0	18.0	11.0	2.5						
Max	0.03	0.65	2.5	20.0	14.0	3.0	0.50		0.03	0.02	-	-
Type	0.015	0.35	1.8	18.5	12.0	2.6	0.10	0.01	0.02	0.01	0.08	0.06

Delong ferrite: ~7%

Welding Current & Instructions

	Ø (mm)	Paramètres de Soudage				Flux
		Intensité (A)	Tension (V)	Stick out (mm)	Vitesse (cm/min)	
SAW AC / = +	1.6	100 - 350	25 - 33	20	30 - 50	UP WP380
	2.4	200 - 400	28 - 35	20	40 - 60	UP WP380M
	3.2	300 - 500	30 - 35	22	50 - 60	UP INOX L
	4.0	350 - 600	30 - 35	22	50 - 60	UP INOX 620