

# STARINOX 316L

## MMA Electrodes

Stainless and Heat resistant steels



STARINOX 316L is a semi-basic MMA electrode suitable for the welding of austenitic steels Cr-Ni steels or cast steels containing 16-20%Cr, 10-14%Ni and 2-3%Mo, i.e. AISI 316 and 316L, having an extra low carbon content. This electrode can also be used for welding of stainless steels of the same type whether stabilised or not for services temperatures up to +400°C.

It is particularly suitable for offshore, chemical industry, hydro power plants and general construction applications. This electrode offers excellent operability and is particularly suitable for downhand butt and fillet welding applications, the 2.5mm and 3.2mm diameter electrodes can be used for positional welding.

Exhibits a stable spray arc transfer resulting in excellent weld bead shape and appearance with a slight concave profile in horizontal vertical fillet welds. There is very little spatter and in combination with the self-releasing slag, post welding cleaning time is maintained to a minimum. Easy arc striking and restriking. Suitable for use with either AC [minimum OCV 50V] or DC positive. Efficiency 100%.

Semi-basic electrode for welding AISI 316 austenitic stainless steels. Excellent resistance to marine corrosion.

Classification	
EN ISO	3581-A: E 19 12 3 L R 12
AWS	A5.4: E 316L-16

Approvals							
ABS	BV	DB	DNV	GL	LRS	RINA	TÜV
E316L-16	UP	●	316L	4571	316L	316L	●

CE

### Chemical analysis (Typical values in %)

	C	Mn	Si	P	S	Cr	Ni	Mo	Ferrite
All weld metal	0.035	0.9	0.8	≤ 0.025	≤ 0.025	19.0	12.0	2.6	5-10

### All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Impact Energy ISO - V (J)
				20 °C
As Welded	≥ 350	≥ 510	≥ 30	≥ 50

### Materials

AISI 316-316L-316LN

ASTM A312 Grades TP316, TP316L

1.4401 (X4CrNiMo17-12-2), (GX2CrNiMoN18-10); 1.4404 (X4CrNiMo17-12-2); 1.4406 (X2CrNiMoN17-11-2); 1.4408 (GX5CrNiMo19-11); 1.4429 (X2CrNiMoN17-13-3); 1.4435 (X2CrNiMo18-14-3); 1.4436 (X4CrNiMo17-13-3); 1.4571 (X6CrNiMoTi17-12-2); 1.4580 (X6CrNiMoNb17-12-2); 1.4581 (GX5CrNiMoNb19-11); 1.4583 (X10CrNiMoNb18-12)

ASTM A351 Grades CF3M, CF3MA

### Storage

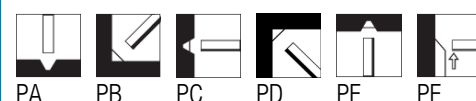
Keep dry and avoid condensation.

Re-drying not generally required.

If necessary 250°-300°C for 1 hour, 5 times max.

### Current condition and welding position

AC; DC+



# STARINOX 316L

MMA Electrodes

*Stainless and Heat resistant steels*



## Packaging data

Diam. (mm)	Length (mm)	Current (A)	Approx. weightn(kg/1000)	GASP		VPMD	
				PC	Code	PC	Code
1.60	300	20-40	7.1	430	W000375883		
2.0	300	30-60	11.5	310	W000375884	150	W000288785
2.5	300	55-80	18.4	190	W000375887	90	W000288786
3.2	350	70-110	35.7	120	W000375885	55	W000288788
4.0	350	120-140	52.3	80	W000375889	40	W000288789
5.0	350	145-180	84.8	50	W000375890	20	W000288790