

Stainless steel Rutile type electrode

SUPER OPTIMAL 316L

Classification **AWS A 5.4:** E 316L- 16 **DIN 8556:** E 19 12 3 LR 23

DIN EN 1600: E 19 12 3 L 32 **Werkstoff Nr:** 1.4430

Description and applications

Low carbon Rutile-basic-coated Mo containing austenitic stainless steel electrode with approx 5-9% ferrite. Coating with very low moisture pick-up. Soft fusion, without spatters, very easy slag removal, exceptional bead appearance, easy restriking. Packed in vacpack system.

For welding and cladding on austenitic Cr-Ni-Mo stainless steels and clad plates. Applied for service temperatures from -120°C up to +400° C in the chemical and petrochemical industries, in refineries, in the food industries and for ship building to weld pipes, tanks, heat exchangers...

Base materials

Stainless steels for general use:				
UNS	Alloy	EN 10088	Material N ^a	UGINE
S31600	316	X5CrNiMo17-12-2	1.4401	UGINOX 17-10 M
S31603	316L	X2CrNiMo17-12-2	1.4404	UGINOX 18-11 ML
J92900		G-X5CrNiMo1911 2	1.4408	
S31635	316Ti	X6CrNiMoTi17-12-2	1.4571	UGINOX 17-11 MT
S31635	316Ti	X10CrNiMoTi18-12	1.4573	
S31640	316Cb	X6NiCrMoNb17-12-2	1.4580	
		G- . X5CrNiMoNb19-11-12	1.4581	

Typical weld metal Chemical Composition (%)

C	Si	Mn	Cr	Ni	Mo	S	P
0.026	0.90	0.75	18.50	12.00	2.40	0.010	0.025

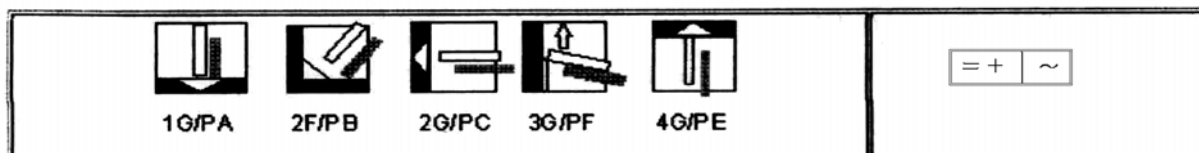
All weld metal mechanical properties (typical)

Tensile Strength R _m (N/mm ²)	Elongation %	ISO- V J RT
590	37	60

Amperes (A)

2.50	3.15	4.00	5.00
50-80	80-110	110-150	150-180

Welding instruction Redrying 1 h at 250° C if necessary. Interpass temperature: <200°C.



Revised on: 10/09/2011

**Stainless steel
Rutile type electrode**

SUPER OPTIMAL 316L-17

Classification	AWS A 5.4: E 316L- 17	DIN 8556: E 19 12 3 LR 23
	DIN EN 1600: E 19 12 3 L 32	Werkstoff Nr: 1.4430

Description and applications

Low carbon Rutile-silica-coated Mo containing austenitic stainless steel electrode with approx 6-8% ferrite. Coating with very low moisture pick-up. Soft fusion, without spatters, very easy slag removal, exceptional bead appearance, easy restriking. Packed in vacpack system.

For welding and cladding on austenitic Cr-Ni-Mo stainless steels and clad plates. Applied for service temperatures from -120°C up to +400° C in the chemical and petrochemical industries, in refineries, in the food industries and for ship building to weld pipes, tanks, heat exchangers...

Base materials

Stainless steels for general use:				
UNS	Alloy	EN 10088	Material N ^o	UGINE
S31600	316	X5CrNiMo17-12-2	1.4401	UGINOX 17-10 M
S31603	316L	X2CrNiMo17-12-2	1.4404	UGINOX 18-11 ML
J92900		G-X5CrNiMo1911 2	1.4408	
S31635	316Ti	X6CrNiMoTi17-12-2	1.4571	UGINOX 17-11 MT
S31635	316Ti	X10CrNiMoTi18-12	1.4573	
S31640	316Cb	X6NiCrMoNb17-12-2	1.4580	
		G- X5CrNiMoNb19-11-12	1.4581	

**Typical weld metal
Chemical
Composition (%)**

C	Si	Mn	Cr	Ni	Mo	S	P
0.026	0.90	0.75	18.50	11.70	2.30	0.015	0.025

**All weld metal
mechanical
properties
(typical)**

Tensile Strength R _m (N/mm ²)	Elongation %	ISO- V J RT
590	37	60

Amperes (A)

2.50	3.15	4.00	5.00
50-70	70-100	100-140	140-170

Welding instruction Redrying 1 h at 250° C if necessary. Interpass temperature: <200°C.

