

OK Autrod 316LSi

GMAW

G 19 12 3 LSi

Description

A continuous, solid, corrosion-resistant, chromium-nickel-molybdenum wire for welding austenitic stainless alloys of the 18% Cr -8% Ni and 18% Cr -10% Ni -3% Mo types.

OK Autrod 316LSi has good general corrosion resistance; in particular, the alloy has very good resistance to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. The higher silicon content improves the welding properties such as wetting. The alloy is widely used in the chemical and food processing industries, as well as in shipbuilding and various types of architectural structure.

Welding current

DC(+)

Classifications

EN 12072	G 19 12 3 LSi
SFA/AWS A5.9	ER316LSi
Werkstoffnummer	~1.4430

Typical chemical composition, aw (%)

C	Si	Mn	Cr	Ni	Mo	Cu
<0.03	0.8	1.8	19.0	12.5	2.8	<0.3

Typical mech. properties all weld metal

Yield stress, MPa	440
Tensile strength, MPa	620
Elongation, %	37

Charpy V

Test temps, °C	Impact values, J
+20	120
-60	95
-196	55

Approvals

DB	43.039.05
DNV	316L MS (-120°C)
UDT	DIN 8556
VdTUV	
Ü	43.039/1

Welding parameters

Diameter, mm	Wire feed, m/min	Welding current, A	Arc voltage, V	Deposition rate kg weld metal/hour
0.8	4.0-17.0	55-160	12-24	1.0-4.2
0.9	3.5-18.0	65-220	15-28	1.1-5.4
1.0	4.0-16.0	80-240	15-28	1.5-6.0
1.2	3.0-14.0	100-300	15-29	1.6-7.5
1.6	5.5-9.0	230-375	23-31	5.2-8.6