

Description

A continuous, solid, corrosion-resistant, chromium-nickel wire for welding steels with a similar composition, wrought and cast steels of the 23% Cr -12% Ni types. The alloy is also used for welding buffer layers on CMn steels and welding dissimilar joints. When using the wire for buffer layers and dissimilar joints, it is necessary to control the dilution of the weld.

OK Autrod 309LSi has good general corrosion resistance. The higher silicon content improves the welding properties such as wetting.

Welding current

DC(+)

Classifications

SFA/AWS A5.9	ER309LSi
EN 12072	G 23 12 LSi
Werkstoffnummer	~1.4332

Typical chemical composition, aw (%)

C	Si	Mn	Cr	Ni	Mo	Cu
<0.03	0.8	1.8	24.0	13.0	<0.3	<0.3

Typical mech. properties all weld metal

Yield stress, MPa	440
Tensile strength, MPa	600
Elongation, %	41

Charpy V

Test temps, °C	Impact values, J
+20	160
-60	130
-110	90

Approvals

DB	43.039.16
UDT	DIN 8556
VdTÜV	
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	15-24	1.0-4.0
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