

## 316LMn

**CATEGORY** GMAW-GTAW Solid wires

**TYPE** Solid welding wire for welding fully austenitic CrNiMnMo stainless steels and low temperature steels not susceptible for hot cracking

**APPLICATIONS** Stainless; resistant to intercrystalline corrosion and wet corrosion up to 350 °C (662 °F). Corrosion-resistant similar to low-carbon CrNiMo(Mn,N) steels/cast steel grades. Seawater resistant, good resistance to nitric acid, selective attack max. 200 µm. Non magnetic (permeability in field of 8000 A/m 1.01 max.). Particularly suited for corrosion conditions in urea synthesis plants for welding work on steel X2 CrNiMo 18 12 and the over-lay side of Type 1.4455 weld claddings. Well suited for joining and surfacing applications with matching and similar austenitic CrNi(N) and CrNiMo(Mn,N) steels/cast steel grades

**CLASSIFICATION**

AWS	AWS A5.9: ER316LMn
EN ISO	ISO 14343-A: G 20 16 3 Mn N L
DIN: W.Nr.	1.4455

**SUITABLE FOR** 1.4311, 1.4406, 1.4429, 1.4439, 1.3951, 1.3952, 1.3953, 1.3965, 1.6902, 1.6903, 1.6905, 1.5637, 1.5680 X2CrNiMoN17-13-3, X5CrNiN 19-9, X1CrNiMoTi 18-13-2, X8Ni9, 10CrNiTi18-10 and cryogenic 3,5-5% Ni-steels

**APPROVALS** CE approved

**WELDING POSITIONS:**



**WELD METAL ANALYSIS %**

C	Mn	Si	Cr	Ni	Mo	N
0.015-0.03	7.0-7.5	0.4-0.5	20-20.5	15.5-16	3.0	0.15-0.18

**MECHANICAL PROPERTIES (TYPICAL)**

Heat treatment	RP0,2 (N/mm2)	Rm (N/mm2)	A5 (%)	Impact energy (J) ISO-V			Hardness HRc / HV
				+20C	-40°C	-196°C	
AW	>430	>650	>35			75	

AW: as welded

**WELDING PARAMETERS / PACKING**

Welding Parameters			Packing	
D (mm)	Voltage (V)	Current (A) DC-	Spool type	kg / pack
0.8	12-24	55-160	BS-300	15
1.0	15-28	80-240	BS-300	15
1.2	15-29	100-300	BS-300	15

**REDRYING TEMPERATURE** not required

**GAS ACC. EN ISO 14175:** M11, M12, M13