

SA 318

CATEGORY SAW Arc Submerged

TYPE Solid stainless steel welding wire for submerged arc welding stabilized stainless steels with high Mo content

APPLICATIONS The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding. Suitable for welding stabilized corrosion-resistant Cr-Ni-Mo steels for working temperatures up to 400°C.

PROPERTIES SA 318 is engineered to a very precise analysis to create a weld deposit of high purity, superior hot cracking and corrosion resistance. CVN toughness down to -120 °C, resistant to intergranular corrosion up to +400 °C.

CLASSIFICATION

AWS	A 5.9: ER 318
EN ISO	14343-A: S 19 12 3 Nb
DIN: W.Nr.	1.4576

SUITABLE FOR

1.4583	X102CrNiMoNb 18 12	316Cb
1.4404	X2CrNiMo 17 12 2	(TP) 316L
1.4401	X4CrNiMo 17 12 2	(TP) 316
1.4571	X6CrNiMo 17 12 2	316 Ti
1.4580	X6CrNiMoNb 17 12 3	316Cb
1.4581	G-X5CrNiMoNb 19 11 2	-
1.4583	X10CrNiMoNb18-12	-
1.4436	X3CrNiMo17-13-3	-
1.4437	G-X6CrNiMo 18 12	-
1.4406	X2CrNiMoN 17 12 3	(TP)316LN

APPROVALS CE approved

WELDING POSITIONS:



WELD DEPOSIT WEIGHT %

C	Mn	Si	Cr	Ni	Mo	Nb
0.035	1.6	0.5	19.0	12.5	2.75	12x%C

* Typical values welded with FL 880 flux

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				20°C	-40°C	-120°C	
AW	>350	>550	>35	>100		>32	

AW: as welded

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters		Packing		
	Voltage (V) (DC+)	Current (A)	spool type	kg / spool	kg / pallet
1,6	27-30	200-300	K-415	25	1050
2,4	29-33	300-400	K-415	25	1050
3,2	29-33	350-500	K-415	25	1050
4,0	30-36	400-600	K-415	25	1050

REDRYING TEMPERATURE Not required