

TIGWELD 318Si

TIG Rods [GTAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 14343-A : W 19 12 3 Nb Si DIN 8556 : SG-X5 CrNiMoNb19 12 3 AWS A-5.9 : ER 318 Si W.Nr. : 1.4576		Power generation industry Constructions & Engineering Petrochemical and chemical industry

- Wire for welding single-grade stainless steels, both stabilized and non-stabilized with Nb, resistant to corrosion from chemical agents.
- Used in all industries where homogeneous grades of CrNiMo steel are welded, up to 400°C.
- Oxidation resistant weld metal up to 800°C.
- Resistant to intergranular corrosion and general corrosion.
- Excellent resistance to hot cracking.

Application

Used for tanks for acids, salts, and alkalis, valves and pipes in the chemical, textile, dye and paper industries.

Base material

DIN	W.Nr.	AISI/ASME	PN
X5CrNiMo 17 12 2	1.4401	316	0H17N12M2T
X6CrNiMoTi 17 12 2	1.4571	316Ti	H17N13M2T, H18N10MT
X3CrNiMo 17 13 3	1.4436	316	
X6CrNiMoTi 17 12 2	1.4579		
X2CrNiMo 17 12 2	1.4404	316L	00H17M14M2
X2CrNiMo 18 14 3	1.4435	316L	
X2CrNiMoN 17 11 2	1.4406	316LN	
X2CrNiMoN 17 13 3	1.4429		
GX5CrNiMo 19 11	1.4408	CF 8N	
X6CrNiMoNb 17 12 2	1.4580	316Cb	
X6CrNiNb 18 10	1.4550	347	
GX5CrNiNb 19 10	1.4552	CF-8C	
X6CrNiMoNb 17 12 2	1.4581	316Cb	
X10CrNiMoTi 18 12	1.4573	316Ti	
X10CrNiMoNb 18 12	1.4583	316Cb	
G-X 10CrNiMo18 9	1.4410	A 351 GradeCF3M	

Typical chemical composition %

C	Si	Mn	Cr	Ni	Mo	Nb
<0,05	0,80	1,50	19,00	12,00	2,80	12x%C

Typical mechanical properties

Yield strength Re [N/mm²]	>380
Tensile strength Rm [N/mm²]	>550
Elongation A5 [%]	>30
Impact energy Kv [J]	>70J (20°C) /
Wire/rod type	solid

Welding current	
Welding positions	
Shielding gases acc. to EN ISO 14175	I1 - Ar / I3 - Ar + >0-95% He /

Welding parameters and packing

Ø	Length [mm]	Weight of packet [kg]
1,6	1000 /	5,0
2,0	1000 /	5,0
2,4	1000 /	5,0
3,2	1000 /	5,0

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