INOX 316L

Electrodes MMA [SMAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 3581-A : E 19 12 3 LR 12 DIN 8556 : E 19123L R 12 AWS A-5.4 : E 316L-16 W.Nr. : 1.4430	UDT	Power generation industry Constructions & Engineering Metallurgy (Steelworks) Mining Petrochemical and chemical industry Agriculture

- Electrode for direct or alternating current welding of austenitic acid-resistant steels with the addition of Mo, with low carbon content, as well as stabilized Nb and Ti, if the working temperature does not exceed 400°C.
- The weld is characterized by good resistance to general and intergranular corrosion in more aggressive environments, e.g. hot acid with reduced concentration.
- Good resistance to chloride pitting corrosion.
- Especially recommended for the food industry.

Application

Food industry, pulp and paper equipment (boilers, evaporators), heat exchangers, dyeing equipment, film processing equipment, pipelines, offshore external construction materials, equipment for marine use, chemicals, dyes, paper, oxalic acid, fertilizer, boat equipment, heat exchangers, laboratory tables and equipment, brewery equipment, dairy and pharmaceutical equipment, oil refining equipment, textile industry equipment, ozone generators, wastewater filters, exhaust manifolds, furnace parts, valve and pump parts.

Base material

PN	EN 10088-1/2	W.Nr.	AISI/ASTM
0H17N12M2T	X5 CrNiMo 17 12 2	1.4401	316
00H17M14M2	X2 CrNiMo 17 13 2	1.4404	316L
	X2 CrNiMo 18 14 3	1.4435	316L
H17N14M2	X5 CrNiMo 17 13 3	1.4436	316
	X6 CrNiMoNb 17 12 2	1.4580	316Cb
	X10 CrNiMoTi 18 12	1.4573	316Ti
	X10 CrNiMoNb 18 12	1.4583	318
	G-X 6CrniMo18 10	1.4408	CF-8M
	G-X 10CrniMo18 9	1.4410	
H17N13M2T, H18N10MT	X6 CrNiMoTi17 12 2	1.4571	316Ti
	X5 CrNiMo17 13	1.4449	318
	G-X5 CrNiMoNb18 10	1.4581	318

Typical chemical composition %

C	Si	Mn	Cr	Ni	Mo
<0,03	0,80	0,70	18,50	11,50	2,70

Typical mechanical properties

Yield strength Re [N/mm2]	>320
Tensile strength Rm [N/mm2]	>510
Elongation A5 [%]	>25

Impact energy Kv [J]	>55J (20°C) / >32 J (-120°C) /
Coating type	rutile
Ferrite content	FN = app. 8
Welding current	
Welding positions	
Redrying	300 - 350°C / 2 h
Additional description	Austenitic microstructure with ferrite content at the level of 3-10 FN. Interpass temperature about 150°C.

Welding parameters and packing

ø	Length [mm]	Welding current [A]	Weight of packet [kg]	Weight of carton [kg]	Pcs/1 kg
2,0	300 /	30-60	1,3	7,8	82
2,5	300 /	60-85	1,4	8,4	53
3,2	350 /	70-125	1,7	10,2	27
4,0	350 /	110-165	1,7	10,2	18
5,0	350 /	165-230	1,7	10,2	12

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