

# INOX R318

Electrodes MMA [SMAW]

Stainless and high alloyed steels

<b>CLASSIFICATION:</b>  EN ISO 3581-A : E 19 12 3 Nb R 12 DIN 8556 : E 19123Nb R 12 AWS A-5.4 : E 318-17 W.Nr. : 1.4576	<b>APPROVALS:</b>	<b>APPLICATION:</b>  Power generation industry Constructions & Engineering Metallurgy (Steelworks) Petrochemical and chemical industry
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- Rutile Nb stabilized electrode for welding Ti or Nb stabilized steels and non-stabilized stainless steels.
- The deposit is resistant to intergranular corrosion up to 400°C, oxidation up to 800°C, and is also very resistant to cracking at high temperatures.
- Recommended for the petrochemical industry.

### Application

Used for acid, salt and alkali tanks, valves and pipes in the chemical, textile, dye and paper industries.


### Base material

PN	DIN	W.Nr.	AISI/ASTM
0H17N12M2T	X5CrNiMo17122	1.4401	316
	X5CrNiMo17133	1.4436	316
H17N13M2T, H18N10MT	X6CrNiMoTi17122	1.4571	316Ti
	X6CrNiMoNb17122	1.4581	316Cb, 318
	X10CrNiMoTi1812	1.4573	316Ti
	X10CrNiMoNb1812	1.4583	316Cb
	G-X6CrNiMo1810	1.4408	A157
	G-XCrNiMoNb1810	1.4581	318
	G-X 10CrNiMo18 9	1.4410	A 351 GradeCF3M
	00H17M14M2	X2 CrNiMo17 13 3	1.4404
	X2 CrNiMo18 12	1.4435	316L
	X6 CrNiMoNb17 12 2	1.4580	316Cb
	X5 CrNiMo17 13	1.4449	318

### Typical chemical composition %

<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>	<b>Ni</b>	<b>Mo</b>	<b>Nb</b>
<0,04	<1,00	0,70	18,50	11,50	2,70	>8x%C

### Typical mechanical properties

<b>Yield strength Re [N/mm2]</b>	>350
<b>Tensile strength Rm [N/mm2]</b>	>550
<b>Elongation A5 [%]</b>	>25
<b>Impact energy Kv [J]</b>	>47J (20°C) /
<b>Coating type</b>	rutile
<b>Ferrite content</b>	FN = app. 10
<b>Welding current</b>	

**Welding positions****Redrying**

300 - 350°C / 2 h

**Additional description**Austenitic microstructure with ferrite content at the level of 4-14 FN.  
Interpass temperature about 150°C**Welding parameters and packing**

∅	Length [mm]	Welding current [A]	Weight of packet [kg]	Weight of carton [kg]
2,0	300 /	30-50	1,0	6,0
2,5	300 /	50-85	1,4	8,4
3,2	350 /	70-125	1,5	9,0
4,0	350 /	110-165	1,5	9,0
5,0	350 /	165-230	1,5	9,0

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