INOX R310

Electrodes MMA [SMAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 3581-A : E 25 20 R 12 DIN 8556 : E 2520 R 23 AWS A-5.4 : E 310-16 W.Nr. : 1.4842	UDT	Power generation industry Constructions & Engineering Metallurgy (Steelworks) Petrochemical and chemical industry

- Electrode for welding high-alloy austenitic stainless steels type 309 and 310, resistant to corrosion and oxidation at high temperatures, working at temperatures up to 1200°C.
- Particularly resistant to continuous exposure to temperatures up to 1200°C.
- Very good impact strength and hot cracking resistance.
- For joining difficult-to-weld steels such as armored, ferritic stainless steels.
- Recommended for joining stainless and carbon steels with low and medium carbon content.

Application

Typical applications include high-temperature furnaces, radiant pipes, steam boilers, internal components of coal gasifiers, thermowells, burners, combustion chambers, retorts, muffs, food processing equipment, cryogenic structures, fans, pipes. Pharmaceutical and chemical industry. It is used in equipment for continuous casting of steel, used in ore and steel processing plants, catalytic recovery systems, petroleum refining industry, sinter plants, cement plants, annealing casings and boxes, fans.

Base material

EN 10088-1/2 EN 10213-4	W.Nr.	PN	AISI/ASTM
X15CrNiSi25-20	1.4841	H25N20S2	310
X8CrNi25-21	1.4845	H23N18	310S
X15CrNiSi20-12	1.4828	H20N12S2	309
X10CrAl7	1.4713	H6S2	
X10CrAl13	1.4724	H13JS	
X10CrAlSi18	1.4742	H18JS	442/446
X10CrAl24	1.4762	H24JS	446
	1.4710		
G-X40CrSi17	1.4740		
G-X15CrNiSi25-20	1.4741		A297HF
G-X40CrNiSi25-12	1.4837		
G-X40CrNiSi22-9	1.4826		
G-X25 CrNiSi20 14	1.4832		
G-X15 CrNi25 20	1.4840		
G-X40 CrNiSi25 20	1.4848		

Typical chemical composition %

C	Si	Mn	Cr	Ni
0,11	0,50	2,00	25,00	20,00

Typical mechanical properties

Yield strength Re [N/mm2]	>350
Tensile strength Rm [N/mm2]	>550
Elongation A5 [%]	>20

Impact energy Kv [J]	>50J (20°C) /
Hardness	160HB /
Coating type	rutile
Ferrite content	FN = app. 0
Welding current	
Welding positions	
Redrying	300 - 350°C / 2 h
Additional description	Preheating and interpass temperature approx. 200-300°C for ferritic steels. Austenitic microstructure.

Welding parameters and packing

ø	Length [mm]	Welding current [A]	Weight of packet [kg]	Weight of carton [kg]	Pcs/1 kg
2,5	300 /	65-80	1,4	8,4	58
3,2	350 /	90-120	1,5	9,0	29
4,0	350 /	115-150	1,5	9,0	19
5,0	350 /	160-210	1,5	9,0	

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