INOX B310

Electrodes MMA [SMAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 3581-A : E 25 20 B 42 DIN 8556 : E 2520 B 22 AWS A-5.4 : E 310-15 W.Nr. : 1.4842	UDT	Power generation industry Constructions & Engineering Metallurgy (Steelworks) Petrochemical and chemical industry

- Basic austenitic electrode for welding stainless steels type 309 and 310, ferritic and austenitic high-alloy steels.
- Weld deposit resistant to flaking up to 1200°C.
- Resistant to low temperatures.
- Very good impact strength and hot crack resistance.
- It is mainly intended for fillet welds.

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, oil refining industry, sinter plants, cement plants, annealing casings and boxes, fans.

Base material

	DIN	W.Nr.	AISI/ASTM	PN
Austenitic and ferritic-pearlitic steels. Steel resistant to chemical corrosion	X15CrNiSi2520	1.4841	310/314	H25N20S2
	X12CrNi2521	1.4845	310S	H23N18
	X15CrNiSi2012	1.4828	309	H20N12S2
	X10CrAl7	1.4713		
	X10CrAl13	1.4724	405	H13JS
	X10CrAl18	1.4742		H18JS
	X10CrAl24	1.4762	442/446	H24JS
Alloyed steel castings:	G-X30CrSi6	1.4710		
	G-40CrSi17	1.4740		
	G-X15CrNiSi2520	1.4741	A 297 HF	
	G-X40CrNiSi2512	1.4837		
	G-X40CrNiSi229	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
0,10	0,20	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]	>60J (20°C) /
Hardness	160HB /
Coating type	basic
Heat treatment	Preheating and transition temperature for ferritic steels up to 200 - 300°C, depending on the particular base material and its thickness. Temperatures in the range of 650 - 900°C should be avoided due to the risk of increased brittleness of the material.
Ferrite content	FN = app. 0
Welding current	
Welding positions	
Redrying	300 - 350°C / 2 h
Additional description	Austenitic microstructure. The amount of heat introduced is about 1.5 [kJ/mm].

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	52
3,2	350 /	90-120	1,7	10,2	30
4,0	350 /	115-150	1,5	9,0	18
5,0	350 /	160-210	1,5	9,0	12

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