INOX R2209

Electrodes MMA [SMAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 3581-A : E 22 9 3 N L R 12 DIN 8556 : E 2293L R 12 AWS A-5.4 : E 2209-17 W.Nr. : 1.4462		Constructions & Engineering Petrochemical and chemical industry

- High-alloy electrode used for the similar joints of duplex steels and dissimilar joints of these steels with similar grades.
- Resistant to pitting, stress corrosion cracking and intergranular corrosion at temperatures up to 250°C.
- The deposit exhibits high strength and is also resistant to the effects of seawater.

Application

Filler material primarily for duplex type 2205. Used for piping in the offshore oil and gas and chemical industries. Suitable for steel plating. Paper machines, lye tanks, digesters for pulp and paper, cellulose fermenters, bleaching washers, pre-steaming vessels. Pressure vessels, pollution control equipment, pipelines, heat exchangers for transporting gas and oil. Impellers, fans, shafts and press rolls requiring combined strength and corrosion resistance. Cargo tanks for ships and trucks, biofuel plants. Sea water cooler pipes, pulverized coal gasification coolers. In the production of urea: working pump body, pump valves, shut-off valves and all other elements most exposed to damage.

Base material

X2CrNiMoN 22-5-3	**1.4462**	**2205**
X2CrNiN 23-4	1.4362	S32304
X2CrNiMoN 22-5-3 z X10CrNiMoNb 18-12	1.4462 z 1.4583	2205 z 318
	1.4462 z P235GH/P265GH, S255N, P295GH, S355N, 16Mo3	
	UNS S31803	2205
	1.4417, UNS S31500	
X3CrNiMoN 27-5-2	1.4460, UNS S31200	329
X4 CrNiMoNb25 7	1.4582	
G-X6 CrNiMo24 82	1.4463	
G-X8 CrNi26 7	1.4347	

Typical chemical composition %

C	Si	Mn	Cr	Ni	Mo	N
<0,03	0,90	0,70	22,50	9,00	3,30	0,12

Typical mechanical properties

Yield strength Re [N/mm2]	>450
Tensile strength Rm [N/mm2]	>550
Elongation A5 [%]	>20
Impact energy Kv [J]	44J (-40°C) /
Coating type	rutile
Welding current	

	
Welding positions	PREN, depending on the degree of mixing withthe base material and the amount of ferrite atthe level of 36-43. The microstructure depends on many factors: e.g. shielding gas, cooling rate. In most cases, austenite with about 25-50% high temperature ferrite.

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