

Stick electrode, high-alloyed, rutile

Classifications												
EN ISO 3581-A		AWS A5.4					Mat. No.					
E 22 12 R 3 2 E			E309-17					1.4829				
Characteristics and typical fields of application												
Resistant to scaling up to 950 °C (1742 °F). For joining and surfacing applications on matching/similar heat resistant steels / cast steel grades.												
Atmosphere							cation temperature in °C (°F) e max. 2 g S/Nm ³ over 2 g S/Nm ³					
Air and oxidizing combustion g Reducing combustion gases			es 950 (174 900 (165			•	· · ·			850 (1562)		
Base materials												
TÜV certified parent metal / 1.4828 – X15CrNiSi20-12; AISI 305; ASTM A297HF												
Typical analysis of all-weld metal (wt%)												
	C		Si		Mn		Cr		1	Ni		
wt-%	0.11		< 0.9		0.8	0.8		22.5			12.5	
Structure: Austenite with part ferrite												
Mechanical properties of all-weld metal												
Heat- treatment	Yield strength $R_{p0.2}$		Yield strength R _{p1.0}		Tensile streng R _m		gth Elongation A $(L_0=5d_0)$			Impact work ISO-V KV J		
	MPa		MPa		MPa			%		+20 °C		
aw	320		340		Ę	550		30			55	
Creep rupture properties: In the range of matching heat resistant parent metals												
Operating data												
		olarity: (+)/ AC	;	ø (mm) 2.5 3.2			L m r 350 350)		Amps A 50 – 80 80 – 110	
Welding instruction												
Materials	Materials Preheating			g Po			Postweld heat treatment					
Heat resistant C cast steel grade	According to parent met			etal	r	Annealing according to parent metal is not necessary if service temperature the same or higher						
Matching auster steels / cast stee	None				1	None						
Approvals												
TÜV (01315), CE												