

Classifications					
EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.		
W 25 20 Mn	SSZ310	ER310(mod.)	1.4842		
Characteristics and typical fields of application					
For tough joints with heat resistant Cr and CrNi steels / cast steel grades. For surfacing and joining on matching / similar heat resistant steels / cast steel grades. For tough fill layers beneath final weld passes made with Thermanit L when welding thicker cross-sections of Cr-steels / cast steel grades to permit use of such steels in sulphureous atmospheres.					
Atmosphere	max. application temperature in °C (°F)				
Air and oxidizing combustion gases	sulphur-free	max. 2 g S/Nm ³			
Reducing combustion gases	1150 (2102)	1100 (2012)			
	1080 (1976)	1040 (1904)			
Base materials					
1.4837 – GX40CrNiSi25-12,	1.4840 – GX15CrNi25-20				
1.4841 – X15CrNiSi25-20,	AISI 305, 310, 314				
ASTM A297 HF, A297 HJ					
Typical analysis of the TIG rods (wt.-%)					
	C	Si	Mn	Cr	Ni
wt-%	0.13	0.9	3.2	25.0	20.5
Structure: Austenite					
Mechanical properties of all-weld metal					
Heat-treatment	Yield strength R _{p0.2}	Yield strength R _{p1.0}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	380	410	580	25	80
Creep rupture properties: In the range of matching heat resistant parent metals					
Operating data					
Polarity:	Shielding gas:	Marks:		∅ (mm)	L mm
DC (–)	(EN ISO 14175) I 1	✦ W 25 20 Mn / 1.4842		1.6	1000
				2.0	1000
				2.4	1000
				3.2	1000
				4.0	1000
Welding instruction					
Materials		Preheating	Postweld heat treatment		
Heat resistant Cr-steels / cast steel grades		According to parent metal	According to parent metal		
Heat resistant matching / similar steels / cast steel grades		None	None		