

Classifications						
EN 14343-A			Mat. No.			
WZ 21 33 Mn Nb			≈1.4850			
Characteristics and typical fields of application						
Resistant to scaling up to 1050 °C (1922 °F). Good resistance to carburizing atmospheres. For joining and surfacing applications with matching / similar heat resistant steels / cast steel grades.						
Atmosphere		max. application temperature in °C (°F)				
Air and oxidizing combustion gases		sulphur-free		max. 2 g S/Nm <sup>3</sup>		
Reducing combustion gases		1050 (1922)		1000 (1832)		
		1000 (1832)		950 (1742)		
Base materials						
1.4876 – Alloy 800 – UNS N08800 – X10NiCrAlTi32-20						
1.4958 – Alloy 800 H – UNS N08810 – X5NiCrAlTi31-20						
1.4859 – UNS N08151 – GX10NiCrSiNb32-20						
Typical analysis of the TIG rods (wt.-%)						
	C	Si	Mn	Cr	Ni	Nb
wt-%	0.12	0.20	4.8	21.5	32.5	1.2
<b>Structure:</b> Austenite						
Mechanical properties of all-weld metal						
Heat-treatment	Yield strength R <sub>p0.2</sub>	Yield strength R <sub>p1.0</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J	
	MPa	MPa	MPa	%	+20 °C	
aw	400	430	600	17	50	
<b>Creep rupture properties:</b> According to matching / similar heat resistant parent metals						
Operating data						
Polarity:	Shielding gas:	Marks:			ø (mm)	L mm
DC (–)	(EN ISO 14175) I1	✦ 1.4850 mod. / WZ 21 33 Mn Nb			2.0	1000
					2.4	1000
					3.2	1000
Welding instruction						
Materials		Preheating	Postweld heat treatment			
Matching / similar steels / cast steel grades		None	None. If necessary stabilize-heating 875 °C (1607 °F) / 3 h / air			
Approvals						
TÜV (07256), CE						