

Classifications								
EN ISO 21952-A	EN ISO 21952-B	AWS A5.28	Mat. No.					
W CrMo91	W 62 9C1MV	ER90S-B9	1.4903					
Characteristics and typical fields of application								
<p>High temperature resistant, resistant to scaling up to 600 °C (1112 °F).            Suited for joining and surfacing applications with quenched and tempered 9 % Cr steels, particularly for matching high temperature resistant parent metal T91 / P91 according to ASTM.</p>								
Grundwerkstoffe								
<p>1.4903 – X10CrMoVNb9-1;            ASTM A 199 Gr. T91; A 355 Gr. P91 (T91); A 213/213M Gr. T91</p>								
Typical analysis of the TIG rods (wt.-%)								
	C	Si	Mn	Cr	Mo	Ni	Nb	V
wt-%	0.1	0.3	0.5	9.0	1.0	0.5	0.06	0.2
<b>Structure:</b> Martensite, suitable for quenching and tempering								
Mechanical properties of all-weld metal								
Heat-treatment	Yield strength R <sub>p0.2</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	%	+20 °C				
760 °C / 2 h	530	620	17	50				
<b>Creep rupture properties:</b> According to matching high temperature resistant parent metal								
Verarbeitungshinweise								
<b>Polarity:</b> DC (–)	<b>Shielding gas:</b> (EN ISO 14175) I1	<b>Marks:</b> ✦ W CrMo91 / ER90S-B9	<b>ø mm</b> 2.0 2.4 3.2	<b>L mm</b> 1000 1000 1000				
Welding instruction								
Materials	Preheating / Interpass temperature	Cool down before PWHT	PWHT					
Matching steels/ cast steel grades	200 – 250 °C (392 - 482 °F) / 200 – 300 °C (392 - 572 °F)	≤100 °C (≤212 °F)	760 °C (1400 °F) – at least 2 h / air					
Approvals								
TÜV (06166), CE								