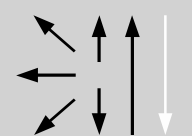


Classifications									
EN ISO 21952-B					AWS A5.28				
W 62 9C1MV					ER90S-B9				
Characteristics and typical fields of application									
<p>High temperature creep resistant; resistant to scaling up to 600 °C (1112 °F); Suited for joining and surfacing applications with quenched and tempered 9 % Cr steels, particularly for matching high temperature resistant parent metal T91 / P91 according to ASTM.</p>									
Grundwerkstoffe									
<p>A213/213M Gr. P91 – UNS K90901 – X10CrMoVNb9-1 – 1.4903 A 199 Gr. T91; A 355 Gr. P91; A182 Gr. F91</p>									
Typical analysis of the TIG rods (wt.-%)									
	C	Si	Mn	Cr	Mo	Ni	Nb	V	Mn+Ni
wt.-%	0.1	0.3	0.7	9.0	1.0	< 0.3	0.06	0.2	≤ 1.0
Structure: Martensite, suitable for quenching and tempering									
Mechanical properties of all-weld metal									
Heat-treatment	Yield strength R _{p0.2}		Tensile strength R _m		Elongation A (L ₀ =5d ₀)		Impact work ISO-V KV J		
	MPa		MPa		%		+20 °C		
760 °C / 2 h	540		620		17		50		
Creep rupture properties: According to matching high temperature resistant parent metal									
Verarbeitungshinweise									
		Polarity: DC (–)	Shielding gas: (EN ISO 14175) I1		Marks: †W 9C1MV / ER90S-B9		ø mm	L mm	
							2.0	1000	
							2.4	1000	
							3.2	1000	
Welding instruction									
Materials	Preheating / Interpass temperature			Cool down before PWHT		Post weld heat treatment (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									
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