



CEWELD ER 90 S-G (P92)

certilas® THE FILLER METAL SPECIALIST

TYPE	Medium alloyed, high-strength creep resistant 9% Chromium alloy.																				
APPLICATIONS	GMAW wire for high temperature, creep resistant, modified 9%Cr1%Mo martensitic steel (T92/P92). Alloy T92/P92 is widely used in the power generating industry for fossil fuel ultra-super-critical (USC) power plant boilers and turbines; the alloy is also finding applications in the chemical and oil and gas industries.																				
PROPERTIES	T92/P92 steel is commonly used at service temperatures up to 620°C. V, Nb and N additions provide this 'creep strength enhanced ferritic' (CSEF) alloy with improved high temperature creep resistance compared to standard CrMo creep resistant alloys.																				
CLASSIFICATION	AWS A 5.28: ER 90S-G EN ISO 21952-A: G ZCrMoWVNb9 0,5 1,5 F-nr 6 FM 3																				
SUITABLE FOR	For matching P92, 9%Cr1.7%W0.5%Mo, creep resisting martensitic steels. X10CrWMoVNb 9 2 ASTM: A182 grade F92, A213 grade T92, A335 grade P92, A387 grade 92																				
APPROVALS	CE																				
WELDING POSITIONS																					
TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)	<table><tr><td>C</td><td>Si</td><td>Mn</td><td>P</td><td>S</td><td>Cr</td><td>Ni</td><td>Mo</td><td>V</td><td>W</td></tr><tr><td>0.1</td><td>0.4</td><td>0.45</td><td>0.008</td><td>0.008</td><td>8.8</td><td>0.5</td><td>0.4</td><td>0.2</td><td>1.6</td></tr></table>	C	Si	Mn	P	S	Cr	Ni	Mo	V	W	0.1	0.4	0.45	0.008	0.008	8.8	0.5	0.4	0.2	1.6
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ALL WELD MECHANICAL PROPERTIES	<table><thead><tr><th>Heat Treatment</th><th>R_{P0,2} MPa</th><th>Rm MPa</th><th>A5 (%)</th><th>Impact Energy (J) ISO-V RT</th></tr></thead><tbody><tr><td>730°C- 760°C /2h</td><td>540</td><td>620</td><td>17</td><td>110</td></tr></tbody></table>	Heat Treatment	R _{P0,2} MPa	Rm MPa	A5 (%)	Impact Energy (J) ISO-V RT	730°C- 760°C /2h	540	620	17	110										
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730°C- 760°C /2h	540	620	17	110																	
REDRYING TEMPERATURE	Not required																				
GAS ACCORDING EN 14175	M21																				



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ER 90 S-G (P92) 1,2MM

Type	KG/unit	EANCode
BS-300	15	8720663416872