



# CEWELD ER 90 S-G (P92) Tig

TYPE	Medium alloyed, high-strength creep resistant 9% Chromium alloy.																				
ANWENDUNGEN	TIG/GTAW 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.																				
EIGENSCHAFTEN	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.																				
KLASSIFIKATION	<table border="0"> <tr> <td>AWS</td> <td>A 5.28: ER 90S-G</td> </tr> <tr> <td>EN ISO</td> <td>21952-A: W ZCrMoWVNb 9 0,5 1,5</td> </tr> <tr> <td>F-nr</td> <td>6</td> </tr> <tr> <td>FM</td> <td>3</td> </tr> </table>	AWS	A 5.28: ER 90S-G	EN ISO	21952-A: W ZCrMoWVNb 9 0,5 1,5	F-nr	6	FM	3												
AWS	A 5.28: ER 90S-G																				
EN ISO	21952-A: W ZCrMoWVNb 9 0,5 1,5																				
F-nr	6																				
FM	3																				
GEEIGNET FÜR	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																				
ZULASSUNGEN	CE																				
SCHWEISSPOSITIONEN																					
TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)	<table border="1"> <thead> <tr> <th>C</th> <th>Si</th> <th>Mn</th> <th>P</th> <th>S</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>W</th> <th>Nb</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>0.35</td> <td>0.5</td> <td>0.008</td> <td>0.008</td> <td>9.1</td> <td>0.5</td> <td>0.8</td> <td>1.6</td> <td>0.05</td> </tr> </tbody> </table>	C	Si	Mn	P	S	Cr	Ni	Mo	W	Nb	0.1	0.35	0.5	0.008	0.008	9.1	0.5	0.8	1.6	0.05
C	Si	Mn	P	S	Cr	Ni	Mo	W	Nb												
0.1	0.35	0.5	0.008	0.008	9.1	0.5	0.8	1.6	0.05												
MECHANISCHE GÜTEWERTE	<table border="1"> <thead> <tr> <th>Heat Treatment</th> <th>R<sub>P0,2</sub> (MPa)</th> <th>R<sub>m</sub> (MPa)</th> <th>A<sub>5</sub> (%)</th> <th>Hardness</th> </tr> </thead> <tbody> <tr> <td>730°C- 760°C 3h</td> <td>550</td> <td>630</td> <td>17</td> <td>HRc</td> </tr> </tbody> </table>	Heat Treatment	R <sub>P0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Hardness	730°C- 760°C 3h	550	630	17	HRc										
Heat Treatment	R <sub>P0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Hardness																	
730°C- 760°C 3h	550	630	17	HRc																	
RÜCKTROCKNUNG	Not required																				
GAS ACC. EN ISO 14175	I1																				