


<b>CATEGORY</b>	SAW Arc Submerged																																			
<b>TYPE</b>	Medium alloyed, high-strength creep resistant 9% Chromium alloy.																																			
<b>APPLICATIONS</b>	Designed for welding equivalent type 91 – 9% Cr Steels modified with small additions of Niobium, Vanadium and Nitrogen to offer improved long term creep properties. This alloy is specially intended for high integrity structural service at elevated temperature such as: Headers, main steam piping and turbine casings, gasification plants etc.																																			
<b>PROPERTIES</b>	Sub arc filler metal specifically intended for high integrity structural service at elevated temperature so the minor alloy additions responsible for its creep strength are kept above the minimum considered necessary to ensure satisfactory performance. SA 90S-B9 is best to be used with FL 880 high basic agglomerated flux to obtain optimum creep properties.																																			
<b>CLASSIFICATION</b>	AWS	A 5.23: EB91																																		
	EN ISO	24598-A: S CrMo91																																		
	F-nr	6																																		
	FM	4																																		
	W.Nr.	1.4903																																		
<b>SUITABLE FOR</b>	A 213 T91 (seamless tubes), A 335 P91 (seamless tubes), A 387 Gr91 (plates), A 182 / A336 F91 (forgings), X10CrMoVnB 91, 1503 Gr91, AFNOR NF A-49213/A-49219 Gr TU Z 10, CDVnB 09-01																																			
<b>APPROVALS</b>	CE																																			
<b>WELDING POSITIONS:</b>																																				
<b>TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)</b>	<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>V</th> <th>N</th> <th>Nb</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>0.25</td> <td>0.5</td> <td>0.01</td> <td>0.01</td> <td>8.7</td> <td>0.6</td> <td>1</td> <td>0.2</td> <td>0.6</td> <td>0.04</td> </tr> </tbody> </table>											C	Si	Mn	P	S	Cr	Ni	Mo	V	N	Nb	0.1	0.25	0.5	0.01	0.01	8.7	0.6	1	0.2	0.6	0.04			
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<b>REDRYING TEMPERATURE</b>	Not required																																			
<b>GAS ACCORDING EN 14175</b>																																				