

9CrWV TIG / MIG

MIG/GMAW and TIG/GTAW wire for low alloy steel

Product name	IABCO 9CrWV TIG/MIG																		
Classification EN ISO	21952-A: G/W ZCrMoWVNb9 0.5 1.5																		
Material No.	-																		
Classification AWS	A5.28: ER90S-G																		
Approvals	-																		
Applications	<p>MIG/TIG arc welding wire for high temperature, creep resistant, modified 9%Cr-1%Mo martensitic steel (T92/P92). 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.</p> <p>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 & gas industries.</p>																		
Base materials	<p>For matching P92, 9%Cr-1.7%W-0.5%Mo, creep resisting martensitic steels.</p> <p>ASTM: A182 grade F92, A213 grade T92, A335 grade P92, A387 grade 92.</p> <p>EN: X10CrWVMoVNb 9 2</p>																		
Typical analysis of wire, weight %	<table> <tr> <td>C:</td> <td>0.10</td> <td>Si:</td> <td>0.30</td> <td>Mn:</td> <td>0.65</td> </tr> <tr> <td>Cr:</td> <td>9.00</td> <td>W:</td> <td>1.60</td> <td>Mo:</td> <td>0.40</td> </tr> <tr> <td>Ni:</td> <td>0.50</td> <td>V:</td> <td>0.15</td> <td>Nb:</td> <td>0.05</td> </tr> </table>	C:	0.10	Si:	0.30	Mn:	0.65	Cr:	9.00	W:	1.60	Mo:	0.40	Ni:	0.50	V:	0.15	Nb:	0.05
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Typical heat treatment ⁽¹⁾	<p>Preheat temperature: 200°C.</p> <p>Interpass temperature: 300°C.</p> <p>PWHT: 760°C.</p>																		
Mechanical properties of weld deposit ⁽²⁾	<p>0.2% proof stress, Rp0.2%: ≥540MPa.</p> <p>Tensile strength, Rm: ≥620Mpa.</p> <p>Elongation, 4d/5d: ≥17%.</p>																		
Other products	SAW: IABCO 9CrWV.																		

Notes (1) Application codes and project specifications should always be referred to for specific requirements.

(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.