



# CEWELD E 9015-B9 (P92)

**certilas®** THE FILLER METAL SPECIALIST

TYPE	Basic, Cr and Mo-alloyed electrode for heat resistant steels T/P92																													
APPLICATIONS	CEWELD® E 9015-B9 (P92) is a basic coated electrode for modified 9Cr1Mo steels. The weld metal of type 9Cr-1Mo-NVWNb is characterised by a martensitic microstructure and is suitable for tempered applications. Applications include joint welding of similar heat resistant steels and cast steels in turbine and power plant construction and in the chemical industry.																													
PROPERTIES	CEWELD® E 9015-B9 (P92) is designed for welding equivalent T/P92 CrMo steels modified with 1.6% tungsten to achieve the creep properties of the base metal. Our electrode is intended for use in structures requiring high resistance at elevated temperatures.																													
CLASSIFICATION	<table><tr><td>AWS</td><td>A 5.5: E 9015-B92</td></tr><tr><td>EN ISO</td><td>3580-A: E Z CrMoWVNb9 0,5 2 B 4 2 H5</td></tr><tr><td>W.Nr.</td><td>1.4901</td></tr><tr><td>F-nr</td><td>4</td></tr><tr><td>FM</td><td>4</td></tr></table>										AWS	A 5.5: E 9015-B92	EN ISO	3580-A: E Z CrMoWVNb9 0,5 2 B 4 2 H5	W.Nr.	1.4901	F-nr	4	FM	4										
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SUITABLE FOR	<p>9%Cr, 1.7%W, 0.5%Mo, P92, 1.4901, 1.4922 X10CrWMoVNb 9 2, X20CrMoV12-1, ASTM: A182 grade F92, A213 grade T92, A335 grade P92, A387 grade 92, A335 grade T92 NF 616</p>																													
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TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%)	<table><tr><td>C</td><td>Si</td><td>Mn</td><td>Cr</td><td>Ni</td><td>Mo</td><td>V</td><td>Nb</td><td>N</td><td>W</td></tr><tr><td>0.1</td><td>0.2</td><td>0.6</td><td>8.5</td><td>0.5</td><td>0.5</td><td>0.2</td><td>0.05</td><td>0.04</td><td>1.7</td></tr></table>										C	Si	Mn	Cr	Ni	Mo	V	Nb	N	W	0.1	0.2	0.6	8.5	0.5	0.5	0.2	0.05	0.04	1.7
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MECHANICAL PROPERTIES	<table><thead><tr><th rowspan="2">Heat Treatment</th><th rowspan="2">R<sub>P0,2</sub> (MPa)</th><th rowspan="2">R<sub>m</sub> (MPa)</th><th rowspan="2">A5 (%)</th><th colspan="3">Impact Energy (J) ISO-V</th><th rowspan="2">Hardness</th></tr><tr><th>RT</th><th>50</th><th>HRc</th></tr></thead><tbody><tr><td>760°C±15°C 2h</td><td>600</td><td>750</td><td>18</td><td></td><td></td><td></td><td></td></tr></tbody></table>										Heat Treatment	R <sub>P0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A5 (%)	Impact Energy (J) ISO-V			Hardness	RT	50	HRc	760°C±15°C 2h	600	750	18					
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REDRYING	400°C / 1 hr																													
GAS ACC. EN ISO 14175																														