

# CROMOCORD 91

Obalená elektróda pre zváranie oceli odolných voči tečeniu a zváranie oceľoliatin  
 Covered electrode for welding creep resistant boiler and pipe steels as well as cast steels  
 Elektroda otulona do spawania stali kotlowych i rurowych odpornych na  
 pelzanie oraz staliwa



## Bázický obal, Basic covering, Otulina zasadowa

### Standards:

EN 1599  
 AWS/ASME SFA-5.5

E CrMo 9 1 B 42 H5  
 ~E9018-B9-H4

### SK Vlastnosti a použitie:

Bázická obalená elektróda pre zváranie vysoko žiarupevných ocelí typu 9Cr-1Mo-V-Nb-N s prevádzkovými teplotami do +620 °C. Zvlášť vhodná pre zváranie tenkostenných dielov, napr. potrubných rozvodov, u ktorých má byť prevedené popúšťacie žihanie 2 h/760 °C. Zvarový kov skúšaný na.

### GB Applications and properties:

Basic covered electrode for welding high-temperature creep resistant steels of type 9 Cr-1Mo-V-Nb-N with operating temperatures of up to +620 °C. Electrode is particularly suited for thin-walled components, e.g. pipings which are subjected to tempering of 2 hrs. at 760 °C. Weld metal is tested as to in-service embrittlement.

### POL Zastosowania i własności:

Elektroda o otulinie zasadowej do spawania wysokootemperaturowych stali odpornych na pelzanie typu 9 Cr-1Mo-V-Nb-N, o temperaturze roboczej do +620 °C. Elektroda jest szczególnie przydatna do komponentów cienkościennych, np. rurociągów, które odpuszczane są przez 2 godziny w temp. 760°C. Stopiwo testuje się na wzrost kruchości podczas pracy.

### Materials:

EN-/AWS-Designation	DIN-/AWS-Designation
X10CrMoVNb9-1	X 10 CrMoVNb 9 1
grade 91 (ASTM A 387)	T 91 (ASTM A 213)
P 91 (ASTM A 335)	F 91 (ASTM A 182)

Please observe admissible operating temperatures for weld consumable and base metal.

### Qualification tests: TÜV

Indications as to approvals, see appendix.

### Weld metal analysis (typical values in %):

C	Si	Mn	Cr	Ni	Mo	V	Nb	N	P	S
0,10	0,30	0,70	9,00	0,40	1,00	0,20	0,05	0,04	≤0,010	≤0,010

### Mechanical properties of all-weld metal (single values are typical values):

Heat treatment	Yield strength [N/mm <sup>2</sup> ]	Tensile strength [N/mm <sup>2</sup> ]	Elongation A <sub>5</sub> [%]	Impact energy ISO-V [J]
				+20 °C
T	≥530	620-850	≥17	≥75

T = tempered 2 hrs. at 760 °C/furnace cooling

Redrying: For 2 hrs. at 340 to 360 °C. Max. 5 times to obtain less than 5 ml H<sub>2</sub>/100 gr. of weld metal.

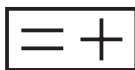
### Amperage [A]:

Ø 2,5	Ø 3,2	Ø 4,0	Ø 5,0
60-90	85-130	130-160	180-230

### Number of pieces, net weights (ca.):

Ø [mm]	Length [mm]	Pieces/Package	Weight/Package [kgs]	Pieces/Carton	Weight/Carton [kgs]
2,5	300	90	1,6	540	10,8
3,2	350	120	4,2	360	12,6
4,0	450	75	3,6	225	10,8
5,0	450	50	5,1	150	15,3

### Type of current/Polarity/Welding positions:



PA

PB

PC

PE

PF

PF2