BÖHLER FOX C 9 MV

Basic coated stick electrode, creep-resistant

Classifications

EN ISO 3580-A	EN ISO 3580-B	AWS A5.5	AWS A5.5M
E CrMo91 B 4 2 H5	E6215-9C1MV H5	E9015-B91 H4	E6215-B91 H4

Characteristics and typical fields of application

The basic coated CrMoVNb core wire alloyed electrode is specially designed for welding of creep resistant tempered martensitic 9 % Cr steels used for turbine and boiler fabrication in thermal power plants as well as in the chemical industry. Approved for long-term use at service temperatures up to 650 °C.

Böhler FOX C 9 MV provides good welding characteristics in all positions except vertical down, a stable arc, low spattering, good slag detachability and excellent striking and re-striking properties.

The chemical composition is optimized in order to provide a high creep resistant and ductile weld metal and is characterized by low hydrogen content and low level of trace elements.

Base materials

Modified 9Cr-1Mo steels like 1.4903, X10CrMoVNb9-1, GX12CrMoVNbN9-1, ASTM Grade 91

Typical analysis of all-weld metal

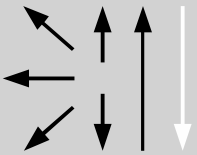
	C	Si	Mn	Cr	Mo	Ni	V	Nb	N
wt.-%	0.10	0.2	0.6	8.5	0.9	0.5	0.2	0.05	0.04

Content of Mn and Ni in total ≤ 1.0 wt.-%

Mechanical properties of all-weld metal at 20 °C – typical values (min. values)

Heat-treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A 5	Impact energy ISO-V J
	MPa	MPa	%	+20 °C
760 °C / 2 h	**580** (≥ 530)	**710** (≥ 620)	**19** (≥ 17)	**70** (> 47)

Operating data



Polarity:	Electrode identification:	ø mm	L mm	Amps A
DC +	FOX C 9 MV 9015-B91	2.5	250	60 – 80
	E CrMo91 B	3.2	350	90 – 120
		4.0	350	110 – 140
		5.0	450	150 – 180

Welding instruction

Preheating / Interpass temperature	Cooling down before PWHT	Post weld heat treatment (PWHT)
180 – 300 °C	≤ 100 °C	760 ± 10 °C / 2 h

Re-drying: 300 – 350 °C / 2 h. Not necessary straight from the tin.

Approvals

TÜV (06762), CE