BÖHLER FOX NIBAS 617

Basic stick electrode, nickel-based

Classification

EN ISO 14172	AWS A5.11
E Ni 6117 (NiCr22Co12Mo)	ENiCrCoMo-1 (mod.)

Characteristics and typical fields of application

Basic electrode is suitable for joining high-temperature and similar nickel-base alloys, heat resistant austenitic and cast alloys, such as 2.4663 (NiCr21Co12Mo), 2.4851 (NiCr23Fe), 1.4876 (X10 NiCrAlTi 32 20), 1.4859 (GX 10 NiCrNb 32 20). The weld metal is resistant to hot-cracking and is used for service temperatures up to +100°C. Scale-resistance up to +1100 °C, high temperature resistant up to +1000 °C. High resistance to hot gases in oxidizing and carburized atmospheres, e.g. gas turbines, ethylene production plants. BÖHLER FOX NIBAS 617 can be welded in all positions except vertical-down. It has a stable arc. Easy slag removal.

Base materials

X10NiCrAlTi32-20 (1.4876)
NiCr23Fe (2.4851)
GX10NiCrNb32-20 (1.4859)
NiCr23Co12Mo (2.4663)
Alloy 617, UNS N06617

Typical analysis of all-weld metal (wt.-%)

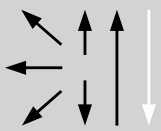
	C	Si	Mn	Cr	Mo	Ni	Co	Fe	Al	Ti
wt.-%	0.06	0.7	0.1	21.0	9.0	Bal.	11.0	1.0	0.9	0.3

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	≥ 400	≥ 620	≥ 22	≥ 100

u untreated, as welded

Operating data



Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
DC (+)	250 – 300 °C, min. 2 h	FOX NIBAS 617 ENiCrCoMo-1	2.5	300	40 – 55
			3.2	300	70 – 90
			4.0	350	90– 110

Approvals

TÜV (10907.), CE