

Classification

EN ISO 3581-A

E Z16 6 Mo B 6 2

Characteristics and typical fields of application

Basic electrode, high efficiency, for welding of soft martensitic forged and cast steels. The high chromium content enhances the corrosion resistance in water, steam and sea atmosphere. Main applications are found in turbines, pumps-and combustion building. Popular in hydro turbine engineering.

The electrode shows very good features in regard to arc stability, weld puddle control, slag detachability and seam cleanliness. Suitable for all positions except vertical down (positional welding up to $\varnothing$ 3.2 mm). Metal recovery approx. 135 %. Low hydrogen is an essential and necessary prerequisite of this product.

Base materials

Soft-martensitic forge steels and cast steels, same-alloyed
1.4405 GX4CrNiMo16-5-1, 1.4418 X4CrNiMo16-5-1

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

	C	Si	Mn	Cr	Ni	Mo
wt-%	0.03	0.3	0.6	15.5	5.8	1.2

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	hardness Hv	Impact work ISO-V KV J
	MPa	MPa	%	HV10	+20 °C
u	520	1050	13	370	28
a	650	920	15	340	42
a1	640	920	16	330	48
s	680	880	24	295	75

u untreated, as welded

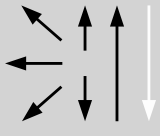
a annealed, 580 °C/4 h / air

a1 annealed, 590 °C/8 h / furnace down to 300°C / air

s solution annealed, 1030 °C/1 h / air 590 °C/8 h / furnace down to 300 °C / air

The maximum interpass temperature should not exceed 120 °C.

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	$\varnothing$ (mm)	L mm	Amps A
	DC (+)			2.5	350	70 – 95
		300 – 350 °C,	FOX CN 16/6	3.2	450	110 – 140
		min. 2 h	M-HD EZ16 6	4.0	450	140 – 180
			Mo B	5.0	450	180 – 230

Approvals

SEPROZ