

Classification

EN ISO 2560-A	EN ISO 2560-B	AWS A5.5	AWS A5.5M
E 46 4 Z1NiCrCu B 42 H5	E 4918-NCC1 A H5	E8018-W2H4R	E5518-W2H4R

Characteristics and typical fields of application

NiCuCr alloyed basic electrode for welding weathering resistant constructional steels. Excellent mechanical properties, and high crack resistance even when subjected to restraint.

Metal recovery approx. 115 %. Easily weldable in all positions except vertical-down. Very low hydrogen contents (acc. AWS condition HD < 4 ml/100 g weld metal).

Base materials

Weather- resistant constructional steels

S235JRG2Cu, S235J2G4Cu, S235J0Cu, S235JRW, S355J0Cu, S355J2G3Cu, S355J0W, 235J2W-S355J2W, S355K2W

ASTM A 588 Gr. A, B, C, K; A 618 Gr. II; 709 Gr. C

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

	C	Si	Mn	Cr	Cu	Ni
wt.-%	0.05	0.4	0.7	0.6	0.45	0.6

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	-40 °C
u	520 (≥ 460)	570 (530 – 680)	27 (≥ 20)	200	130 (≥ 47)
s	500	550	27	190	≥ 90

u untreated, as-welded

s stress relieved 580 °C/2h / furnace down to 300 °C / air

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
	DC (+)	300 – 350 °C, min. 2 h	FOX NiCuCr 8018- W2 E 46 4 Z B	2.5	350	80 – 110
				3.2	350	130 – 150
				4.0	450	150 – 190

The interpass temperature of 100 °C and a max. weaving width 2.5 x diameter of the electrode core wire should not be exceeded.

Approvals

RMR (3 YHH)