

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 25 22 2 N L R 1 2	E310-16 (mod.)

Characteristics and typical fields of application

Rutile coated low carbon electrode of E 25 22 2 N L R / E310Mo-16 (mod.) type with controlled Mo and N alloying and high Ni-content to assure a fully austenitic structure (ferrite < 0.5%). The electrode is suited for urea plant components exposed to extremely severe corrosion at high pressures and temperatures. The weld deposit will exhibit high resistance to boiling concentrated nitric acid (optimum condition: 60 – 80% HNO₃). The corrosion rate in the Huey test is 0.08 g/m²h (4 mils/year). The alloying with chromium and molybdenum results in high resistance to chloride-induced pitting corrosion and BÖHLER FOX EASN 25 M-A can also be used in high chloride concentrations at elevated temperatures. Further applications are in highly corrosive areas in industries such as dyeing (bleaching and dyeing baths), textile, pulp & paper, leather, chemicals, pharmaceuticals, and rayon. The rutile cover concept ensures easy handling in all positions except vertical down.

Base materials

1.4435 X2CrNiMo18-14-3, 1.4465 X1CrNiMoN22-25-3, 1.4466 X2CrNiMoN25-22-5

Typical analysis


	C	Si	Mn	Cr	Ni	Mo	N
wt.-%	0.035	0.4	4.2	24.7	22.7	2.4	0.12

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	-196°C
u	430 (≥ 350)	620 (≥ 550)	35 (≥ 25)	85	50 (≥ 32)

u untreated, as-welded

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX EASN 25 M-A E 25 22 2 N L R	3.2 × 350	70 – 120
			4.0 × 350	90 – 160

Suggested heat input is max. 1.5 kJ/mm and interpass temperature max. 150 °C.

Preheating and post-weld heat treatment generally not needed.

Avoid weaving more than two times the core wire diameter during welding. Keep the arc short and grind out root pass end craters.

Approvals

CE