

Classifications
EN ISO 3581-A

E 25 4 B 2 2

Characteristics and typical fields of application

Basic coated, cored wire alloyed electrode of E 25 4 B type for welding heat resistant steels and cast steel grades. Corrosion resistant and similar to matching or similar Mo-free 25Cr(Ni) alloys. For furnaces requiring improved resistance to reducing and oxidizing sulfurous gases as well as for final passes of weld joints. Scaling resistant up to 1100°C.

Base materials

1.4340 GX40CrNi27-4, 1.4713 X10CrAl7, 1.4724 X10CrAl13, 1.4742 X10CrAlSi18, 1.4745 GX40CrSi23, 1.4746 X8CrTi25, 1.4762 X10CrAlSi25, 1.4776 GX40CrSi29, 1.4821 X15CrNiSi25-4, 1.4822 GX40CrNi24-5, 1.4823 GX40CrNiSi27-4
 AISI 327, 442, 446, ASTM A 297 HC
 UNS S44200, 44600, J92605, J93005, J92605

Typical analysis


	C	Si	Mn	Cr	Ni
wt.-%	0.10	0.5	1.2	25.0	5.4

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
u	550 (≥ 400)	720 (≥ 600)	22 (≥ 15)	50

u untreated, as-welded

Operating data

	Polarity	DC+	Dimension mm	Current A
	Electrode identification	FOX FA E 25 4 B	2.5 × 300	50 – 75
			3.2 × 350	80 – 105
			4.0 × 350	100 – 130

The suggested preheating temperature for base materials of matching composition is 100 – 300°C, depending on the composition and material thickness. Post-weld heat treatment can be performed at 980 – 1050°C followed by air cooling.

Heat resistant steels generally do not require any preheating or post-weld heat treatment. For base materials being sensitive to embrittlement, the interpass temperature should not exceed 300°C.

Approvals

CE