

Classifications

EN ISO 3581-A	Mat. No.
E 25 4 B 2 2	1.4820

Characteristics and typical fields of application

Stainless; corrosion resistant similar to matching or similar Mo-free 25 % Cr(Ni) steels / cast steel grades. For joining and surfacing with matching and similar (Mo-free) stainless CrNi steels/cast steel grades. Should parent metal be susceptible to embrittlement, interpass temperature must not rise above 300 °C (572 °F). Resistant to scaling in air and oxidizing combustion gases up to 1150 °C (2102 °F). Good resistance in sulphurous combustion gases at elevated temperatures. For matching and similar heat resistant steels / cast steel grades.

Base materials

1.4340 – GX40CrNi27-4; 1.4347 – GX8CrNi26-7; 1.4821 – X20CrNiSi25-4;
AISI 327; ASTM A297HC

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

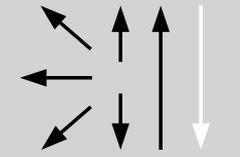
	C	Si	Mn	Cr	Ni
wt-%	0.08	0.5	1.3	26.0	5.0

Structure: Ferrite/austenite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p1.0}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Hardness
	MPa	MPa	%	HB 30
aw	500	700	20	180

Operating data

	Polarity: DC (+)	Ø (mm)	L mm	Amps A
		3.2	350	70 – 110
		4.0	350	90 – 140

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching and similar stainless steels / cast steel grades	According to wall thickness: 150 – 300 °C (302 – 572 °F). None for steel grade 1.4347	Cooling in air, possibly quenching at 980 °C (1796 °F) / air. To restore toughness for cast steel grades 1.4347 and 1.4336 quench at 1050 °C (1922 °F) / water or air
Matching heatresistant steels	None	Mostly none