

## Classifications

EN ISO 14343-A	Mat. No.
G 25 4	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. Should parent metal be susceptible to embrittlement interpass temperature must not be allowed to 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 solid wire (wt.-%)

	C	Si	Mn	Cr	Ni
wt-%	0.06	0.8	0.8	26.0	5.0

**Structure:** Ferrite/austenite

## Mechanical properties of all-weld metal

Heat-treatment	Yield strength R <sub>p0.2</sub>	Yield strength R <sub>p1.0</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Hardness
	MPa	MPa	MPa	%	HB30
aw	500	520	650	20	180

**Creep rupture properties:** In the range of matching cast steel grades

## Operating data

Polarity:	Shielding gas:	ø (mm)	Spool:
DC ( + )	(EN ISO 14175) M12, M13	1.0	B300
		1.2	B300
		1.6	B300

## Welding instruction

Materials	Preheating	Postweld heat treatment
Matching and similar stainless steels / cast steel grades	According to wall thickness: 100 – 300 °C (212 – 392 °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 heat resistant steels	None	Mostly none