

Product Data Sheet

**Core wire alloyed
High Chrome - Nickel Austenite.**

SUPER OPTIMAL 312-17

Classification

AWS A 5.4: E 312- 17

DIN EN ISO 3581-A :E 29 9 R 12

Werkstoff Nr :1.4337

Description and applications

Electrode for high strength joint welding and surfacings of similar and equal steels or cast steels, for joint welding tensile unalloyed steels, tempered and tool steels, high manganese steels, spring steels and joints between dissimilar steels with high alloyed stainless steels. Furthermore for crack proof tough inter-passes on hard surfacings and for abrasion resistant and warm hardened surfacings. The austenitic – ferritic weld metal is stainless & corrosion resistant. Due to enhanced delta –ferrite content, black – white joints are highly resistant against hot-cracking. Dies, tools, spring steel, shaft repair....superior weld ability for all steels...

Typical weld metal Chemical Composition (%)

C	Si	Mn	Cr	Ni	S	P
0.10	<0.90	<1.0	29.0	9.0	0.012	0.015

All weld metal mechanical properties (typical)

Tensile Strength R_m (N/mm ²)	Yield Strength R_p (N/mm ²)	Elongation A_5 (%)
>800	>500	>20

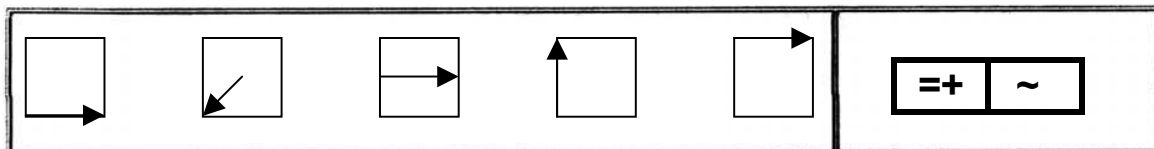
Amperes (A)

2.50mm	3.15mm	3.20mm	3.25mm	4.00mm	5.00mm
50-80	80-110	80-110	90-120	110-150	150-180

Welding instruction

Pre-heating depending on base material, low heat input required. Otherwise pre-heating not necessary. Keep dry and avoid condensation. Re-dry generally not required, if necessary redry electrodes at 300-350°C for 1hr. Interpass temperature :< 200°C.

Welding positions



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