Data sheet and application

DIM L-1.4842 ©

Material no.: 1.4842
DIN 8556: SG X 12 CrNi 25 20
EN ISO 14343-A: G 25 20 Mn
AWS A5.9: ER310 (mod.)
AISI: 310S

Highly alloyed, heat-resistant

Characteristics

Solid wire electrode for uniform, heat-resistant rolled-, forged- and cast steels, e.g. annealings, heat treatments, boiler constructions, petroleum industry, ceramic industry.
Fully austenitic weld metal. Preferred in the case of attacks of oxidizing, nitrogen-containing and oxygen-deficient gases. Joint welds on heat-resistant Cr-Si-Al steels exposed to sulfur-containing gases.

Scaling resistance up to +1200°C. Cold resistant to -196°C. The temperature range between +650-900°C is to be avoided because of the risk of embrittlement.

Materials

Austenitic:
1.4841 X15CrNiSi25-21, 1.4845 X8CrNi25-21, 1.4828 X15CrNiSi20-12,
1.4840 GX15CrNi25-20, 1.4846 X40CrNi25-21, 1.4826 GX40CrNiSi22-10,
1.4832 / 37/48
Ferritic-perlitic:
1.4713 X10CrAlSi7, 1.4724 X10CrAlSi13, 1.4742X10CrAlSi18, 1.4762X10CrAlSi25,
1.4710 GX30CrSi7, 1.4740 GX40CrSi17
AISI 305, 310, 314, ASTM A297 HF, A297 HJ

Chemical composition

C	Si	Mn	Cr	Ni
0,13	0,9	3,2	24,6	20,5

Certificate of batch upon request.

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Mechanical properties of pure weld metal

	Yield strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A (L0=5d0) %	Impact energy ISO-V KV J +20°C | -196°C
u*	400 (≥ 350)	320 (≥ 550)	38 (≥ 20)	95 | (≥32)

u* untreated, welding condition – protection gas Ar+2.5% CO2

Processing instructions

Protection gases: Argon + max. 2.5% CO2