BÖHLER FFB-IG

Solid wire, high-alloyed, heat resistant

Classifications

EN ISO 14343-A	AWS A5.9	
G 25 20 Mn	ER310 (mod.)	

Characteristics and typical fields of application

GMAW wire for analogous, heat resisting, rolled, forged and cast steels, e.g. in annealing shops, hardening shops, steam boiler construction, the crude oil industry and the ceramics industry. Fully austenitic deposit. Preferably employed for applications involving the attack of oxidizing, nitrogen-containing or low-oxygen gases. The final layer of joint welds in heat resisting CrSiAl steels exposed to sulphurous gases must be deposited by means of FOX FA or FA-IG. Scaling resistance up to +1200 °C. Cryogenic toughness down to –196 °C. The temperature range between +650 °C and +900 °C should be avoided owing to the risk of embrittlement.

Base 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
Ferritic-perlitic
1.4713 X10CrAlSi7, 1.4724 X10CrAlSi13, 1.4742 X10CrAlSi18, 1.4762 X10CrAlSi25, 1.4710 GX30CrSi7, 1.4740 GX40CrSi17

AISI 305, 310, 314, ASTM A297 HF, A297 HJ

Typical analysis of solid wire (wt.-%)

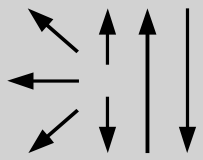
	C	Si	Mn	Cr	Ni
wt-%	0.13	0.9	3.2	24.6	20.5

Mechanical properties of all-weld metal

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	– 196 °C
u	**400** (≥ 350)	**620** (≥ 550)	**38** (≥ 20)	**95**	≥ 32

u untreated, as welded – shielding gas Ar + 2.5 % CO_2

Operating data



Polarity:	Shielding gases:	ø (mm)
DC (+)	Argon + max. 2,5 % CO_2	0.8 1.0 1.2

Preheating and interpass temperatures for ferritic steels 200 – 300 °C.

Approvals