

EN 12072:1999:
AWS A5.9-93:
W.Nr.:

G 22 12 H
ER309(mod.)
1.4829

BÖHLER FF-IG

GMAW solid wire,
high-alloyed, heat resistant

Description

GMAW wire for analogous, heat resisting rolled, forged and cast steels as well as for heat resisting, ferritic CrSiAl steels, e.g. in annealing shops, hardening shops, steam boiler construction, the crude oil industry and the ceramics industry. Austenitic deposited with a ferrite content of approx. 8 %. Preferably used for applications involving the attack of oxidizing gases. The final layer of joint welds in CrSiAl steels exposed to sulphurous gases must be deposited by means of FOX FA or FA-IG.

Scaling resistance up to +1000 °C.

Typical Composition of Solid Wire

C	Si	Mn	Cr	Ni
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Mechanical Properties of All-weld Metal

(*)		u		
yield strength R_e N/mm ² :		480		(≥ 350)
tensile strength R_m N/mm ² :		620		(≥ 540)
elongation A ($L_0 = 5d_0$) %:		34		(≥ 30)
impact work ISO-V KV J	+ 20 °C:	110		(≥ 70)

(*) u untreated, as-welded – shielding gas Ar + 2.5 % CO₂

Operating Data



shielding gases:
Argon + max. 2.5 % CO₂

ø mm
1.0
1.2



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

Base Materials

austenitic

1.4828 X 15 CrNiSi 20 12, 1.4826 G-X 40 CrNiSi 22 9, 1.4833 X7 CrNi 23 14

ferritic-perlitic

1.4713 X 10 CrAl 7, 1.4724 X 10 CrAl 13, 1.4742 X 10 CrAl 18, 1.4710 G-X 30 CrSi 6,

1.4740 G-X 40 CrSi 17

AISI 305; ASTM A297HF

Approvals and Certificates

TÜV-A (26), UDT, SEPROZ

Same Alloy Filler Metals

SMAW stick electrode: FOX FF
FOX FF-A

GTAW rod:

FF-IG