BÖHLER X 90-IG

Solid wire, low-alloyed, high strength

Classifications

EN ISO 16834-A	EN ISO 16834-B	AWS A5.28	AWS A5.28M
G 89 6 M21 Mn4Ni2CrMo	G 83A 6 M21 N4M4T	ER120S-G	ER83S-G

Characteristics and typical fields of application

GMAW wire for the welding of higher-strength, heat treated, fine-grained constructional steels with a minimum yield strength of 890 MPa.

Due to the precise addition of micro-alloying elements X 90-IG wire features excellent ductility and crack resistance in spite of its high strength.

Good cryogenic impact energy down to –60°C.

Base materials

High-strength fine-grained steels

S890Q, S890QL, alform® 900 x-treme, alform® plate 900 M x-treme, alform® 960 x-treme, alform® plate 960 M x-treme

ASTM A 709 Gr. 100 Type B, E, F, H, Q, HPS 100W

Typical analysis of solid wire (wt.-%)

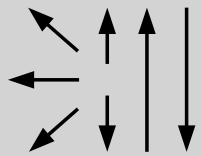
	C	Si	Mn	Cr	Ni	Mo
wt-%	0.1	0.8	1.8	0.35	2.25	0.6

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	–60 °C
u	**915** (≥ 890)	**960** (≥ 940 - 1180)	**20** (≥ 15)	**130**	≥ 47

u untreated, as welded – shielding gas Ar + 15 – 25 % CO_2

Operating data



Polarity:
DC (+)

Shielding gases:
Argon + 15 – 25 % CO_2

ø (mm)
1.0
1.2

Preheating and interpass temperature as required by the base metal.

Approvals

TÜV (5611.), DB (42.014.23), GL (6Y89S), SEPROZ, CE