

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

Medium alloy solid wire electrode for shielded arc welding of quenched and tempered fine grained structural steels. Outstanding tough weld metal at low temperature when deposited with gas mixture. Good resistance to cold cracking due to high purity of the wire surface. For use in crane and vehicle manufacturing.

Base materials

S890 and higher strength grades, thermo mechanically treated fine grain steels.
S890Q, S890QL, alform® 900 x-treme (wire is especially balanced for this plate steel)
ASTM A 709 Gr. 100 Type B, E, F, H, Q, HPS 100W

Typical analysis of solid wire (wt.-%)

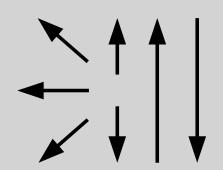
	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.1	0.8	1.8	0.35	2.3	0.6

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	≥ 890	940 – 1180	≥ 15		≥ 47

u untreated, as welded – shielding gas Ar + 15 – 25% CO₂

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.