BÖHLER alform® 900 L-MC

Metal cored wire, seamless, high strength

Classifications

EN ISO 18276-A	EN ISO 18276-B	AWS A5.28 / SFA-5.28
T 89 5 ZMn2NiCrMo M M21 1 H5	T Z 83 5 T15-1M21A-N4C2M2-UH5	E120C-GH4

Characteristics and typical fields of application

BÖHLER alform® 900 L-MC metal cored wire, manufactured with seamless laser technology, is developed for shielded arc welding of thermo mechanically produced fine grained structural steels. A balanced metallurgy combined with a very precise production technology results in high strength combined with very good toughness behaviour and excellent welding performance. This tubular wire possesses higher rigidity – as a result it offers exact ignition and excellent feeding characteristic. Due to the manufacturing technology, this metal cored wire ensures low diffusible hydrogen content of < 2 ml / 100g weld metal. This metal cored wire is designed for welding under mixture gas (Ar + CO2) in PA and PB-position. Good results were also achieved after using alternative gases, 8 – 10 % CO2 + Ar and different welding positions (PG). This filler material is used for high strength steel constructions, crane and vehicle manufacturing, for ship building, offshore applications.

Base materials

S890 and higher strength grades, thermo mechanically treated fine grain steels
S890Q, S890QL, XABO 90, QX 1002, 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

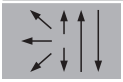
	Gas	C	Si	Mn	Cr	Ni	Mo
wt.-%	M21	0.06	0.7	1.9	0.5	2.1	0.4

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J	
	Mpa	MPa	%	+20°C	-50°C
u	920 (≥890)	980 (940-1040)	17 (≥15)	80	70 (≥47)

u untreated, as welded – shielding gas M21

Operating data



Polarity	DC +
Shielding gas (EN ISO 14175)	M21

Dimension mm
1.2

Preheating and interpass temperature as required by the base metal

Approvals

TÜV (19278), DB (42.052.31/01), CE