BÖHLER alform® 960 L-MC

Metal cored wire, seamless, high strength

Classifications

EN ISO 18276-A	EN ISO 18276-B
T 89 4 ZMn2NiCrMo M M21 1 H5	T Z 83 4 T15-1M21A-N4C2M2-UH5

Characteristics and typical fields of application

The BÖHLER alform® 960 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 behaviour. This seamless tubular wire possesses higher rigidity – as a result it offers exact ignition and excellent feeding characteristic. Due to the manufacturing technology metal cored wire ensures lowest diffusible hydrogen content of < 2 ml / 100g. 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 and also for crane and vehicle manufacturing. The chemical analysis and the mechanical properties of the welding filler material are especially designed for the base material alform® 960 x-treme.

Base materials

S 960 and higher strength grades, thermo mechanically treated fine grain steels
aligned to alform® 960 x-treme base material

Typical analysis

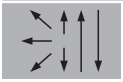
	Gas	C	Si	Mn	Cr	Ni	Mo
wt.-%	M21	0.06	0.7	1.9	0.6	2.2	0.5

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	-40°C
u	980 (≥960)	1020 (980-1180)	16 (≥15)	80	60 (≥47)

u untreated, as welded – shielding gas M21

Operating data



Polarity	DC +	Dimension mm
Shielding gas (EN ISO 14175)	M21	1.2

Preheating and interpass temperature as required by the base material

Approvals

TÜV, DB , CE