

**Classifications**
**EN ISO 18276-B**

TZ2T15-1M21A-N4C1M2-H5

**Characteristics and typical fields of application**

BÖHLER alform® 1100 L-MC metal cored wire manufactured with seamless laser technology is developed for shielded arc welding of fine grained structural steels of yield strength above 1100 MPa. A balanced metallurgy combined with a very precise production technology results in high strength combined with 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, metalcored wire ensures lowest diffusible hydrogen content of < 2 ml / 100g. This metalcored wire is designed for welding under mixed gas (Ar + CO<sub>2</sub>) in PA and PB-position. This filler material is used for high strength steel constructions and 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® 1100 x-treme.

**Base materials**

Thermo mechanical rolled accelerated cooled and tempered with YS> 1100 MPa  
Special design to alform® 1100 x-treme base material

**Typical analysis**

	Gas	C	Si	Mn	Cr	Ni	Mo
wt.-%	M21	0.09	0.4	1.4	0.7	2.7	0.5

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

Condition	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact energy ISO-V KV J	
	MPa	MPa	%	-20°C	-40°C
u	1120 (≥1100)	1160	12 (≥10)	45 (≥27)	40 (≥27)

u untreated, as welded – shielding gas M21

**Operating data**

Polarity	DC +	Dimension mm
<b>Shielding gas</b> (EN ISO 14175)	M21: Ar + 15 – 25 % CO <sub>2</sub>	1.0
		1.2

Preheating and interpass temperature as required by the base metal.

The claimed typical mechanical properties for all-weld metal are achievable with controlled heat-input: 0.5 – 0.9 kJ/mm according to EN 1011-2.

**Approvals**

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