

## MT-316 L

## 1.4430

MIG/TIG welding wire of austenitic chrome nickel molybdenum – steel, very low carbon content, for welding stainless and cold – tough austenitic steels exposed to working temperatures up to +400°C; cold – tough down to – 196°C.

### Standard designation

Material No.	1.4430
AWS/ASME SFA-5.9	~ER 316 L Si
EN ISO 14343-A	G/W 19 12 3 LSi

### Main base metals

Stainless austenitic chrome nickel molybdenum – steel/cast steel, e.g.

1.4404	X 2 CrNiMo 17 13 2	1.4571	X 6 CrNiMoTi 17 12 2
1.4404	G-X 2 CrNiMo 18 10	1.4573	X 10 CrNiMoTi 18 12
1.4406	X 2 CrNiMoN 17 12 2	1.4580	X 6 CrNiMoNb 17 12 2
1.4429	X 2 CrNiMo 17 13 3	1.4581	G-X 5 CrNiMoNb 18 10
1.4435	X 2 CrNiMo 18 14 3	1.4583	X 10 CrNiMoNb 18 12
1.4408	G-X 6 CrNiMo 18 10	1.4436	X 5 CrNiMo 17 13 3
1.4401	X 5 CrNiMo 17 12 2	1.4420	X 5 CrNiMo 18 11

### Mechanical properties of all – weld – metal (typical values)

Welding process Gas shield Thermal treatment Test temperature		[°C]	TIG I 1 untreated		MIG M 11 untreated	
			+20°C	-196°C	+20°C	-196°C
0,2%-yield strength	R <sub>p0,2</sub>	MPa	≥295		≥295	
Tensile strength	R <sub>m</sub>	MPa	≥510		≥510	
Elongation	A <sub>5</sub>	[%]	≥25		≥25	
Impact strength	A <sub>v</sub>	[J]	LNB	LNB	LNB	LNB

### Average chemical composition of all - weld - metal (%)

C	Si	Mn	Cr	Mo	Ni
0,03	0,65-1,2	1,0-2,50	18,0-20,0	2,5-3,0	11,0-14,0

### Structure

Austenite with deltaferrite

### Gas types applicable TIG

I 1

### Gas types applicable MIG

M 11, M 12

### Approvals

TÜV, DB, CE

### TIG rod diameters, unit weights

Diameter [mm]	Length [mm]	Kg per box
1,00	1000	10,0
1,20	1000	10,0
1,60	1000	10,0
2,00	1000	10,0
2,40	1000	10,0
3,20	1000	10,0
4,00	1000	10,0
5,00	1000	10,0

### MIG welding wire

Diameter 0,8mm 1,0mm 1,2mm 1,6mm

### Welding positions MIG acc.to EN ISO 6947

PA, PB, PF

### Welding positions TIG acc.to EN ISO 6947

PA, PB, PC, PF, PE

### Current/Polarity TIG

= -

### Current/Polarity MIG

= +