MT-308 L 1.4316

Chrome nickel steel MIG/TIG wire with very low carbon content, for welding stainless and cold-tough austenitic steels exposed to temperatures of up to + 350°C. Cold-tough down to –269°C.

Standard designation

DIN 8556	SG X 2 Cr Ni 19 9
Material No.	1.4316
AWS/ASME SFA-5.9	ER 308 L Si
B.S.2901 part 2	308 S93
EN 12072	G 19 9 LSi/W 19 9 LSi

Main base metals

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

1.4306	X 2 Cr Ni 19 11	1.4301	X 5 CrNi 18 10
1.4306	X 7 Cr 14	1.4303	X 5 CrNi 18 12
1.4311	X 7 CrAl 13	1.4308	G-X 6 CrNi 18 9
1.4552	G-X 5 CrNiNb 18 9	1.4310	X 12 CrNi 17 7
1.4541	X 6 CrNiTi 18 10	1.4319	X 5 CrNi 18 7
1.4550	X 6 CrNiNb 18 10		

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

Welding process Gas shield Thermal treatment Test temperature		**[°C]**	**TIG Welding argon Untreated +20°C**	** -196°C**	**MIG M 11 Untreated +20°C**	** -196°C**
0,2%-yield strength	$R_{p0,2}$	[N/mm^2]	315		315	
1,0%-yield strength	$R_{p1,0}$	[N/mm^2]	340		340	
Tensile strength	R_m	[N/mm^2]	540		540	
Elongation	A_5	[%]	35		35	
Impact strength	A_V	[J]	75	50	75	50

Average Chemical Composition Of all - weld - metal (%)

C	Si	Mn	Cr	Ni
0,02	0,8	1,7	20,0	10,0

Structure Austenite with delta ferrite

Gas types applicable TIG Welding argon

Gas types applicable MIG Mixed gases, e.g. M 11 and M 23, as well as M 32 and M 21, if carburization is taken into account.

Approvals TÜV, DB, UDT

TIG rod diameters, unit weights

Diameter [mm]	**Length [mm]**	**Kg per box [kg]**
1,0	1000	10
1,6	1000	10
2,0	1000	10
2,4	1000	10
3,2	1000	10
4,0	1000	10
5,0	1000	10

MIG welding wire

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

TIG = - **MIG = +**