

AX-316L MIG/TIG

1.4430

CrNiMo steel filler metal with particularly low carbon content, well suited for MIG/TIG welding of austenitic stainless steels which are exposed to temperatures of up to 400°C; tough at sub-zero down to -196°C.

Standard designations

DIN 8556	SGX2 CrNiMo 19 12
Werkstoff-Nummer	1.4430
AWS/ASME SFA-5.9	ER 316 L Si
DIN EN 12072	G/W 19123 L Si

Filler metal chemical composition in %, average values

C	Si	Mn	Cr	Mo	Ni
0,02	0,8	1,7	18,0	2,7	12

Structure

Austenite with delta ferrite

Mechanical properties, all-weld metal (average values)

Welding process: Shielding gas: Heat treatment: Temperature controlled at:		[°C]	TIG Welding Argon without		MIG M 11 without	
			+20°C	-196°C	+20°C	-196°C
Yield strength	R _{p0,2}	[N/mm ²]	380		380	
Yield strength	R _{p1,0}	[N/mm ²]	400		400	
Tensile strength	R _m	[N/mm ²]	600		500	
Elongation at rupture	A ₅	[%]	35		35	
Impact strength	A _v	[J]	130	40	130	35

Main base metals

Austenitic stainless CrNiMo steels / Cast steels, e.g.:

1.4404 X 2 CrNiMo 17 13 2	1.4571 X 6 CrNiMoTi 17 12 2
1.4404 G-2 X 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

1.4401 X 5 CrNiMo 17 12 2	1.4420 X 5 CrNiMo 18 11
1.4408 G-X 6 CrNiMo 18 10	1.4436 X 5 CrNiMo 17 13 3

as used in chemical industry and industrial food processing equipment, ship building, architectural building and roofing, etc.

Applicable shielding gases

TIG : Welding Argon
MIG: Mixed gases, e.g. M11, M23
as well as M32, M13, and M21, allowing for carbonisation

Approvals

Information will be provided upon request

TIG rods

Available diameters: 1,0 mm 1,6 mm 2,0 mm 2,4 mm 3,2 mm 4,0 mm 5,0 mm
1000 mm length

MIG wire

Available diameters: 0,8 mm 1,0 mm 1,2 mm 1,6 mm

TIG   MIG  