TECHNICAL DATA SHEET
STAINLESS STEEL FILLER METAL

316LSi

Comparable specifications

ASME SFA A 5.9: ER316LSi
EN ISO 14343-A: 19 12 3 L Si
Werkstoff Nr.: 1.4430

Description and applications*

* *Illustrative, not-exhaustive list*

Austenitic stainless steel filler metal with a low carbon content, which reduces the possibilities of intergranular carbide precipitation, while increasing the resistance to intergranular corrosion without the use of stabilizers such as niobium or titanium. The higher silicon content improves the usability of the filler metal in the gas metal arc welding process.

The presence of molybdenum provides creep resistance in a halide atmosphere. It is slightly magnetic. Good general corrosion resistance.

This grade may be used for:

- welding low-carbon molybdenum-bearing austenitic alloys;
- joining and surfacing of stainless steels type 316, 316L and 316Ti;
- applications as capweld for the clad side of plates having equivalent coating;
- applications for food processing and chemical industry;
  applications for household (e.g. hot water tanks), building (e.g. architectural and roofing) and ship building;
- applications where a very good corrosion resistance is required, such as in acid media a/o in chlorinated solutions.

Weldable base materials*

* *Illustrative, not-exhaustive list*

All 300 series austenitic stainless steel, particularly 316 and 316L

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 510 N/mm^2 **Yield Strength ($Rp_{0.2}$):** ≥ 320 N/mm^2
Elongation: ≥ 25% **Charpy-V Impact (R.T.):** ≥ 80 J

Chemical composition*

* *For reference only values*

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
max	1.00	0.65	max	max	11.00	18.00	2.50	max
0.03	2.50	1.00	0.020	0.030	14.00	20.00	3.00	0.50

Standard packaging data*

Welding process	Product type	Ø mm (inches)	Packing type	Weight kg (lbs)	Length mm (inches)
GMAW **	filler wire	0.80 - 1.20 (0.030 - 0.047)	spools BS300 / D300	15 (33)	n.a.
GTAW **	filler rod	1.60 - 4.00 (1/16 - 5/32)	cardboard boxes / tubes	5 (11)	1000 (39.4)

* *Other sizes and packing types are available upon request*
** *GMAW: gas metal arc welding; GTAW: gas tungsten arc welding*

Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

CE marking type-testing performed and available.

Customized labels are available upon request.

Type approvals

Canadian Welding Bureau Cert. nr. NOV316LS (GMAW / GTAW)
DB Zulassungs nr. 43.097.10 (GMAW / GTAW)
TUV Nord Kennblatt nr. 04030 (GMAW) **TUV Nord** Kennblatt nr. 04031 (GTAW)

Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.

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