

316H

Comparable specifications

ASME SFA A 5.9: ER316/316H
EN ISO 14343-A: 19 12 3 H
Werkstoff Nr.: ~1.4430

Description and applications*

* *Illustrative, not-exhaustive list*

Austenitic stainless steel filler metal with the same chemical composition as 316L, except that the allowable carbon content has been restricted to the higher portion of the 316 range.

Carbon content in the range of 0.04%-0.08% provides higher tensile and creep strengths at elevated temperatures; it is used for service temperature up to +700°C.

Specially designed for welding 316H base metal.

The presence of molybdenum provides creep resistance at elevated temperatures and pitting resistance in a halide atmosphere. It is slightly magnetic.

This grade may be used for:

- welding type 316/316H material and other similar materials as below listed;
- applications where hot cracking resistance is expected;
- applications in chemical and petrochemical industries;
- power generation, plants and nuclear facilities;
- welds in furnace equipment and turbine components' productions;
- applications in pulp and paper industry.

Weldable base materials*

* *Illustrative, not-exhaustive list*

Austenitic stainless steels such as 321/321H, 347/347H, 316/316H.

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 550 N/mm² **Yield Strength (Rp0.2):** ≥ 350 N/mm²
Elongation: ≥ 25%

Chemical composition*

* *For reference only values*

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.04	1.00	0.30	max	max	11.00	18.00	2.00	max
0.08	2.50	0.65	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)
SAW **	filler wire	1.60 - 4.00 (1/16 - 5/32)	basket rims B450	25 (55)	n.a.

* *Other sizes and packing types are available upon request*

** *GMAW: gas metal arc welding; GTAW: gas tungsten arc welding; SAW: submerged 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.

Customized labels are available upon request.

Type approvals

Canadian Welding Bureau Cert. nr. NOV316H (GMAW / GTAW)

Lot classification

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