

409

Comparable specifications

ASME SFA A 5.9: ER409Nb
EN ISO 14343-B: ~409Nb
Werkstoff Nr.: ~1.4009

Description and applications*

* Illustrative, not-exhaustive list

Stainless steel filler metal characterized by a ferritic microstructure used to join matching or dissimilar base metals, where niobium stabilization is preferred over titanium.

The niobium addition forms carbides to improve corrosion resistance, increase strength at high temperature, and promote the ferritic microstructure. The controlled carbon content along with the niobium addition provides excellent welding characteristics.

Not recommended for multi-pass applications.

This grade may be used for:

- joining of matching or dissimilar base metals;
- welding of automotive exhausts as well as flues and ducts subject to moderately high temperatures.

Weldable base materials*

* Illustrative, not-exhaustive list

Type 409 409Ti, 409Nb, 439, 430 and other ferritic stainless steels.

All-weld metal mech. properties*

* For reference only values

Tensile strength (Rm): $\geq 450 \text{ N/mm}^2$ Yield Strength (Rp_{0.2}): $\geq 250 \text{ N/mm}^2$
Elongation: $\geq 15\%$

Chemical composition*

* For reference only values

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb
0.02	0.40	0.40	max	max	max	10.50	max	max	10xC
0.05	0.80	0.75	0.030	0.030	0.60	13.50	0.50	0.75	0.75

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. NOV409CB (GMAW / GTAW)

Lot classification

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