

TECHNICAL DATA SHEET

ALUMINUM ALLOY FILLER METAL



420C

Comparable specifications

ASME SFA A 5.9: ER420 EN ISO 14343-B: 420 Werkstoff Nr.: 1.4031

Description and applications*

* Illustrative, not-exhaustive list

Corrosion and heat resistant martensitic stainless steel similar to ER410, except for slightly higher chromium and carbon contents. Hardenable by heat treatment.

Used for many surfacing operations requiring superior resistance to abrasion, as well as corrosion resistance along with somewhat higher hardness than weld metals deposited by ER410 electrodes, which increases wear resistance.

It requires preheat and inter-pass temperatures of not less than about 200°C, followed by slow cooling. Post weld heat treatment is used to temper the weld deposit.

Weldable base materials*

AISI 420

* Illustrative, not-exhaustive list

All-weld metal mech. properties*

* For reference only values

Tensile strength (Rm): ≥ 450 N/mm² **Yield Strength (Rp_{0.2}):** ≥ 250 N/mm²
Elongation: ≥ 15%

Chemical composition*

* For reference only values

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.36	max	max	max	max	max	12.50	max	max
0.40	0.60	0.50	0.015	0.030	0.60	14.00	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.

Lot classification

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