

## 320LR

### Comparable specifications

ASME SFA A 5.9: ER320LR  
Werkstoff Nr.: 2.4660

### Description and applications\*

\* Illustrative, not-exhaustive list

Austenitic stainless steel filler metal with Nb added to provide resistance to intergranular corrosion. The elements C, Si, P and S are specified at lower maximum levels and the Nb and Mn are controlled at narrow ranges - thereby reducing the weld metal hot cracking and fissuring (while maintaining the corrosion resistance) frequently encountered in fully austenitic stainless steel weld metals.

This grade may be used for:

- welding of base metals of similar composition for applications where resistance to severe corrosion involving a wide range of chemicals, including sulphuric and sulphurous acids in their salts, is required;
- welding of both castings and wrought alloys of similar composition without post-weld heat treatment.

### Weldable base materials\*

\* Illustrative, not-exhaustive list

UNS N08021, UNS N08022

### All-weld metal mech. properties\*

\* For reference only values

Tensile strength (Rm):  $\geq 520$  N/mm<sup>2</sup>    Yield Strength (Rp<sub>0.2</sub>):  $\geq 300$  N/mm<sup>2</sup>  
Elongation:  $\geq 25\%$

### Chemical composition\*

\* For reference only values

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb
max	1.50	max	max	max	32.00	19.00	2.00	3.00	0.20
0.025	2.00	0.15	0.020	0.015	36.00	21.00	3.00	4.00	0.40

### 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.
SMAW **	core wire for electrodes	1.60 - 5.00 (1/16 - 0.197)	wooden boxes	500 - 750 (1100 - 1650)	250 - 450 (10 - 18)

\* Other sizes and packing types are available upon request

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