

# TECHNICAL DATA SHEET

## ALUMINUM ALLOY FILLER METAL



### 35.45

#### Comparable specifications\*

EN ISO 14343-A: G Z 35 45 Nb / W Z 35 45 Nb

\* There are no national specifications for this alloy, neither ASME IX qualification F-number.

#### Description and applications\*

Austenitic stainless steel filler metal characterized by very high resistance to temperature-scaling up to 1180°C.

\* Illustrative, not-exhaustive list

This grade may be used for:

- high temperature applications;
- welding of heat-resistant steels and cast steels of similar nature;
- joining and overlay weldings of similar alloyed heat resistant steels and steel casts;
- joining and cladding of high heat resistant Cr-Ni steels of the same kind and cast steels in a low sulphurous environment.

#### Weldable base materials\*

GX45NiCrNbSiTi45-35 (EN 10295)

\* Illustrative, not-exhaustive list

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

**Tensile strength (Rm):** ≥ 450 N/mm<sup>2</sup>     **Yield Strength (Rp<sub>0.2</sub>):** ≥ 245 N/mm<sup>2</sup>  
**Elongation:** ≥ 6%

\* For reference only values

#### Chemical composition\*

| C    | Mn   | Si   | S     | P     | Ni    | Cr    | Mo   | Cu   | Nb   | Ti   | Zr   |
|------|------|------|-------|-------|-------|-------|------|------|------|------|------|
| 0.40 | 0.80 | 1.40 | max   | max   | 45.00 | 34.90 | max  | max  | 0.60 | 0.05 | 0.05 |
| 0.45 | 1.20 | 1.70 | 0.005 | 0.020 | 46.00 | 35.50 | 0.50 | 0.30 | 0.90 | 0.15 | 0.15 |

\* For reference only values

#### 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.