

Lastofil 8003

Welding of dissimilar metals

CLASSIFICATION

EN ISO 14343-A : G 23 12 L Si

AWS A5.9 : ER 309LSi

GENERAL DESCRIPTION

High alloyed stainless steel welding wire for joining dissimilar metals.

Recommended for joining martensitic and ferritic steels if preheated up to 200 - 300 °C (390 - 570 °F).

Suitable for working temperatures up to 300 °C (570 °F) ("black-and-white" assemblies).

Oxidation resistant up to 1.000 °C (1.830 °F).

APPLICATIONS

Joining austenitic and ferritic stainless steel to low- and unalloyed steel (17Mn4, StE355, ...).

Tough, crack-resistant underlayers for hardfacings.

Stainless surface coatings on unalloyed steel (rustproof from the first layer).

Refacings with a low friction coefficient.

CHEMICAL COMPOSITION (%) (Typical values, all weld metal)

| | | | | |
|-------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| C : < 0.03 | Si : 0.65 - 1.00 | Mn : 1.00 - 2.50 | Cr : 23.00 - 25.00 | Ni : 12.00 - 14.00 |
| S : < 0.03 | Mo : < 0.75 | P : < 0.03 | Cu : < 0.75 | |

MECHANICAL PROPERTIES (Typical values, all weld metal)

| Yield Strength N/mm ² | Tensile Strength N/mm ² | Elongation 5d (%) | Impact Strength Charpy V notch (ISO-V) |
|-------------------------------------|---------------------------------------|----------------------|-------------------------------------------|
| ≥ 320 MPa | ≥ 510 MPa | ≥ 25% | ≥ 50 J (20°C) |

GENERAL INFORMATION

Welding positions All

Shielding gas Ar/CO₂ (M12: EN ISO 14175) or Ar/O₂ (M13: EN ISO 14175)

Packing 15 kg spool (in a cardboard box)

Polarity DC+

Diameter (mm) 0.8 1.2

Tips & tricks Clean the weld area thoroughly and eliminate all traces of oil and grease.

The information in this document is based on intensive tests and is accurate to the best of our knowledge. Do note that these values are only typical values for tests in accordance to prescribed standards. The suitability of the product should always be confirmed by qualification tests before use in any application. The information can be changed without previous notice.