

Lastofil 85

Joining difficult to weld steel - highest strength

CLASSIFICATION

EN ISO 14343-A : G 29 9

AWS A5.9 : ER 312

GENERAL DESCRIPTION

Solid welding wire for joining dissimilar steel types (stainless steel to carbon steel) and for refacings.

Suitable for welding steel with a high carbon content.

An elevated delta ferrite content in an austenitic structure assures a very high resistance against hot cracking.

Suitable for welding manganese steel, armour steel, spring steel. Refacings that harden by impact load.

Oxidation resistant up to 1150 °C (2100 °F).

APPLICATIONS

Joining wearplates.

Dissimilar welding (stainless steel to steel).

Crack-resistant underlayers for hardfacings.

Refacings where good corrosion resistance or friction resistance is expected and where abrasion resistance is less important.

Welding or repairing cast steel with a high chromium content (1.4762, 1.4085 aso).

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

C : < 0.15	Mn : 1.60 - 2.50	Si : 0.30 - 0.65	Cr : 28.00 - 32.00	Ni : 8.00 - 10.50
Mo : < 0.75	Cu : < 0.75	S : < 0.03	P : < 0.03	

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)
≥ 510 MPa	≥ 700 MPa	≥ 20%	≥ 30 J (20°C)

GENERAL INFORMATION

Welding positions All, except vertical down.

Shielding gas Argon with 2% O₂ (or 0.5 to 5% CO₂)

Packing 15 kg spool (in a cardboard box)

Polarity DC+

Diameter (mm) 1.0 1.2 1.6

Tips & tricks

Joining difficult to weld steel: in function of the chemical composition and the workpiece section, preheating and slowly cooling down can be necessary.

Avoid any heattreatment at temperatures between 550 °C (1020 °F) and 850 °C (1560 °F) and prevent that heavy welds remain too long in this temperature zone.

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.