

# Lastek 503

## Seawater resistant

### CLASSIFICATION

EN ISO 24373 : CuNi30Mn1FeTi

DIN 1733 : SG CuNi30Fe

### GENERAL DESCRIPTION

Alloy for TIG welding of copper-nickel alloys with 10-30% nickel (Cunifer) or for joining these alloys to other nickel alloys.

High corrosion and erosion resistance in seawater.

Surfacing of steel and cast iron.

High purity weld deposit.

Porous free welds, with high toughness.

### APPLICATIONS

Seawater condenser pipes, desalination plants, chemical industry, heat exchangers.

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

<b>Ni :</b> 29.00 - 32.00	<b>Mn :</b> 0.50 - 1.50	<b>Fe :</b> 0.40 - 1.40	<b>Ti :</b> 0.20 - 0.50	<b>Cu :</b> Balance
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### MECHANICAL PROPERTIES (Typical values, all weld metal)

<b>Yield Strength</b> N/mm <sup>2</sup>	<b>Tensile Strength</b> N/mm <sup>2</sup>	<b>Elongation</b> 5d (%)	<b>Impact Strength</b> Charpy V notch (ISO-V)
≥ 180 MPa	≥ 350 MPa	≥ 25%	

### GENERAL INFORMATION

#### Welding positions

**Shielding gas** Argon (or Helium or Argon/Helium mixed gas)

**Packing** 5 kg in a cardboard box

**Polarity** DC, with the torch on the negative pole.

<b>Diameter (mm)</b>	1.6	2.0	2.4	3.2
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<b>Lenght (mm)</b>	1000	1000	1000	1000
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#### Tips & tricks

Always thoroughly remove oil and grease.

During welding of copper-nickel alloys, take into consideration the relatively poor thermal conductivity of these alloys (contrary to pure copper). Therefore welding should be done fast and with a small melting pool without preheating.

*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.*