

# Lastek 15

## Welding of Titanium

### CLASSIFICATION

EN ISO 24034 : Ti 0120 (Ti99.6)

AWS A5.16 : ER Ti2

### GENERAL DESCRIPTION

TIG rod for welding pure titanium.

Very corrosion resistant (against chlorous solutions like seawater, hypochlorite,...).

### APPLICATIONS

Aviation and space industry.

Chemical and petrochemical industry.

Welding of Titanium T35 and T40, CP Titanium grade 1 and 2, DIN 3.7025 and 3.7035, ASTM B348 grade 1 and 2.

Lastek 15 is also used for joining alfa-beta titanium alloys where a high ductility is necessary.

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

<b>C</b> : < 0.03	<b>O2</b> : 0.08 - 0.16	<b>N2</b> : < 0.015	<b>H2</b> : < 0.008	<b>Fe</b> : < 0.12
<b>Ti</b> : Balance				

### MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	Elongation 5d (%)	Impact Strength Charpy V notch (ISO-V)
275 MPa	350 MPa	≥ 30%	

### GENERAL INFORMATION

**Welding positions** NA

**Shielding gas** Argon

**Packing** 5 kg in a cardboard box

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

**Diameter (mm)** 1.6 2.0 2.4 3.0

**Length (mm)** 1000 1000 1000 1000

#### Tips & tricks

Welding titanium has to be done under complete argon protection (99.99% pure with dew point lower than -50 °C (-58 °F)), in the torch and at the backside of the weld.

The gas protection has to be maintained during cooling down until the welding zone has passed the temperature of 300 °C (570 °F).

The work pieces have to be degreased very carefully (acetone or alcohol) before welding.