

# Lastek 85

## Joining dissimilar and difficult to weld steels

### CLASSIFICATION

EN ISO 14700 : E Fe11

AWS A5.4 : E 312-16

### GENERAL DESCRIPTION

High alloyed electrode for joining and surfacing tool steel, spring steel, manganese steel, carbon steel, cast steels and all difficult to weld steels.

The deposit has exceptional tensile strength and resistance to cracking.

Oxidation resistant up to 900 °C (1650 °F).

Even on dirty metal, porous-free welds can be obtained.

Stable arc, almost no spatters.

Smooth welds, without undercut.

### APPLICATIONS

Joining of broken tools and dies, cast steel, abrasion resistant steel.

Repair of hydraulic rams, bulldozer buckets and teeth, crushers of manganese steel, gears.

The work hardening characteristics and the high chromium content make Lastek 85 suitable for surfacing on rails and bearing areas, on plastic extrusion tools and cutting edges.

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

<b>C :</b> 0.11	<b>Cr :</b> 30.00	<b>Mn :</b> 1.80	<b>Si :</b> 0.46	<b>Ni :</b> 9.50
<b>Fe :</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)
≥ 700 MPa	≥ 820 MPa	≥ 21%	≥ 33 J (R.T.)

### GENERAL INFORMATION

**Welding positions** All, except vertical down.

**Shielding gas** NA

**Packing** 5 kg in a plastic box

**Polarity** AC or DC, reverse polarity (electrode positive)

**Diameter (mm)** 2.5 3.2 4.0 5.0

**Length (mm)** 275 300 350 450

**Approx. current (A)** 55 85 110 160

**Tips & tricks** Electrode to be held perpendicular to the work piece; keep a short arc.  
Allow each weld bead to cool slightly before making a further deposit.  
Preheating is necessary when joining high carbon steel ( 150 -250°C).  
Allow the welded area to cool down slowly.  
12-14% manganese steel to be welded as cold as possible ( max. 350°C)

*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.*