

**Joining cast iron and cast iron to steel alloys****GENERAL DESCRIPTION**

Ferronickel cored electrode for welding grey, nodular and alloyed cast iron. Due to the low heat input, the high tensile strength and ductility, successful welds can be made on heavy or highly stressed sections.

Modi Lastek 41E can be used for joining virtually all types of cast iron and for joining cast iron to different types of steel alloys. The special formula allows to weld with a high current without the coating turning red. The possibility to use straight polarity without danger of cracking guarantees full penetration and very strong welds.

Thanks to the pulsating arc, Lastek 41E can be used in all positions (vertical down and up, overhead).

Fully machinable, solid and dense deposit.

**APPLICATIONS**

Repairing heavy sections of grey and alloyed cast irons, SG iron, meehanite.

Machine bases, motor blocks, gear cases, cast iron dies, pumps.

Repairing casting defects with good colour match.

Hardness: 150-180 HB

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

C : < 1.00	Mn : < 1.00	Si : < 2.00	Ni : 45.00 – 60.00	S : < 0.03
Cu : < 1.00	Fe : 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)
	≥ 400 MPa	≥ 20%	

**GENERAL INFORMATION**

<b>Welding positions</b>	All		
<b>Shielding gas</b>	NA		
<b>Packing</b>	5 Kg in a plastic box		
<b>Polarity</b>	AC or DC, Straight polarity (electrode negative)		
<b>Diameter (mm)</b>	2.5	3.2	4.0
<b>Length (mm)</b>	300	300	350
<b>Approx. current (A)</b>	75	90	115

**Tips & Tricks**

When assembling cast iron and steel, weld 2/3 on the cast iron and 1/3 on the steel.

The pulsating arc of Modi Lastek 41E alternately creates a phase without deposit (where the developed heat burns the oil or other impurities on the cast iron) and a phase where a droplet is deposited on the cast iron.

The first phase is performed during the forward movement and the second phase during the backward movement.

Peen the deposit after every pass to reduce stress build-up.