

## Ni based hardfacing electrode for hot work stamping dies

### GENERAL DESCRIPTION

Excellent resistance to wear, corrosion and heat.

Maintains a good hardness even at very high temperatures.

Resistant to corrosion caused by acids and gases. (Good resistance to hydrochloric acid, sulphuric acid, phosphoric acid depending on concentration and temperature)

Crack free deposits with exceptional resistance to thermal and mechanical shocks.

Oxidation resistant up to 1200 °C (2200 °F).

### APPLICATIONS

Forging dies, rollers and cutting tools exposed to high temperatures in rolling mills.

Accessories for thermal treatment; grates, baskets, ...

Surfacing of steam valve seats.

Protecting parts in seawater.

Hardness: 190 HB after welding // 42 HRC work hardened // 140 HB at 760 °C

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

C : < 0.08	Mn : < 0.70	Si : < 0.30	Cr : 15.00 – 17.00	Mo : 17.00 – 19.00
W : 5.00 – 6.00	Ni : 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	≥ 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, reverse polarity (electrode positive)		
<b>Diameter (mm)</b>	2.5	3.2	4.0
<b>Length (mm)</b>	300	300	350
<b>Approx. current (A)</b>	60 - 100	90 - 120	120 - 150

<b>Tips &amp; Tricks</b>	Remove all cracks and fatigued metal by grinding. The surface must be thoroughly cleaned from oil and grease. Keep a very short arc.
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*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.*