

# P906

## Metal spray powder containing tungsten carbides

### CLASSIFICATION

### GENERAL DESCRIPTION

Hard facing metal spray powder for hot spraying (Lastispray system). A thin layer yields a noticeable longer life of work pieces. Nickel-chromium base alloy with tungsten carbides. The Ni-Cr matrix has excellent corrosion resistance, especially in reducing environments, combined with high hardness. Due to the special carbides, uniformly distributed in the matrix, the layer has high resistance to abrasive wear. Although the carbide content is very high, Lastek P906 has good wetting properties and may be used on thicker pieces, in difficult to reach areas and on very thin cutting edges.

### APPLICATIONS

Press moulds, dies and extrusion mandrels for ceramics and bricks.

Chip knives for debarking, scrapers and mixer blades for refractory's and concrete, centrifuges, ploughshares...

Matrix hardness: 60-64 HRC

Carbides: 70 HRC

Specific weight of the deposit: 10.6 g/cm<sup>3</sup>

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

<b>C</b> : 1.50 - 1.90	<b>W</b> : 28.50 - 29.00	<b>Fe</b> : 1.60 - 3.30	<b>Cr</b> : 9.70 - 11.30	<b>Si</b> : 2.70 - 3.50
<b>B</b> : 2.00 - 2.40	<b>Ni</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)

### GENERAL INFORMATION

**Welding positions** NA

**Shielding gas** NA

**Packing** 1 kg in a plastic container

**Polarity** NA

#### Tips & tricks

The surface to be hard faced should be degreased and free of dirt.

If grit blasting is used for surface preparation all residues have to be removed by a metal wire brush. Do not touch prepared surfaces with fingers.

Preheat the work piece up to 300 °C (572 °F) and deposit a thin layer to avoid oxidation.

Heat locally up to red-hot to ensure a good bond and spray more powder to obtain the required thickness.

Spraying and melting of P906 should be done alternately.

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.