

P905

Corrosion resistant spraying powder

CLASSIFICATION

GENERAL DESCRIPTION

Very hard nickel base metal spray powder that combines wear resistance with excellent corrosion resistance (due to Mo and Cu additions).

Despite its hardness, the deposit also withstands impact loading.

The powder is less fluid than P909, permitting a thicker build-up.

Resistant against seawater, diluted acids (sulphuric-, phosphoric acid).

It can only be finished by grinding.

APPLICATIONS

Cutting knives, pump and turbine sleeves, valve seats, fan blades, wire drawing tools, mixing equipment in chemical and fertilizer industry, textile spindles.

Hardness: 54 - 60 HRC

Fusing temperature: 980 - 1010 °C (1796 - 1850 °F)

Density of the deposit: 7.5 g/cm³ (0.271 lb/cu.in)

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

C : 0.40 - 0.70	Mo : 2.00 - 4.00	Cu : 2.00 - 4.00	Fe : 1.50 - 4.00	Cr : 15.00 - 17.50
Si : 3.00 - 5.00	B : 3.00 - 4.00	Ni : Balance		

MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm ²	Tensile Strength N/mm ²	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 P905 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.