PRODUCT SPECIFICATION

P923

Cold spraying powder for metal to metal wear

CLASSIFICATION

GENERAL DESCRIPTION

P923 is a spraying powder to be used with the Lastigun cold spray method.
It has an excellent wear resistance on sliding surfaces and bearings.
The unsealed deposit can retain oil, releasing it as needed to fight friction.
It can easily be machined with the standard hardmetal tools (ISO K10).
The deposit is oxidation resistant up to temperatures of about 450 °C (840 °F).

APPLICATIONS

All lubricated sliding surfaces, bearing areas, pistons, valve stems.
All other machine parts that have to be machined with tungsten carbide tools after spraying.

Hardness: 140-200 HB
Density of the deposit: 7.9 g/cm³ (0.286 lb/cu.in)

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

C :	≤ 0.025	**Mn :**	≤ 2.00	**Si :**	≤ 1.00	**Cr :**	16.00 - 18.00	**Ni :**	12.00 - 13.00
Mo :	2.00 - 3.00	**Fe :**	Balance						

MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm²	Tensile Strength N/mm²	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	Always spray a bond coat with P921 on the correctly prepared surface (see instructions P921). Follow immediately with the capping layers of P923 (at the correct spraying temperature of 100 to max 250 °C (210-480 °F)). P923 can be build up in thicknesses up to 4 mm (0.16"). Flame settings: neutral flame - oxygen pressure 4 kg/cm² (57psi) - acetylene pressure 0.3 to 0.4 kg/cm² (4.3-5.7 psi) (tips n° 3 or 5). Distance between nozzle and work piece approx. 15 cm (6"), torch perpendicular to the sprayed surface.