

# CEWELD Powder PTA DUR 12

**TYPE** Gas atomized spherical Cobalt-Chromium-Tungsten alloy powder. (P Co3, Stellite 12)

**APPLICATIONS** CEWELD Powder PTA DUR 12 is a cobalt-base metallic powder with spherical shape designed for plasma-transferred-arc (PTA) welding process. It is especially suited for hardsurfacing of parts subject to a combination of erosion, corrosion, cavitation, pressure, impact and abrasion and high temperatures.  
Such as: Internal combustion exhaust valve, Valve plugs & seats, Pump sleeves, Bearing areas, Saw blades and tips, Saw teeth, Chain saw guide bars, and other Wood cutting tools, Knives, Scissor blades, Molten glass cutter  
Twist rolls, Hot extrusion dies

**PROPERTIES** CEWELD Powder PTA DUR 12 weld deposit can be machined with tungsten tool tips and by grinding. It have a Excellent gliding and abrasion characteristics, very good polishability, normalized in hardness, slight-magnetic. Machinable by grinding and tungsten carbide tools.  
Melting temperature: 1200 – 1365 °C Density: 8.5 g/cm<sup>3</sup>  
Hardness of the weld deposit (approx.) approx. 50 HRC in the second layer welded by PTA process  
Hot hardness at 500 °C (approx.) approx. 42 HRC in the second layer welded by PTA process

**CLASSIFICATION** EN ISO 14700: P Z Co3

**SUITABLE FOR** CEWELD Powder PTA DUR 12 is a cobalt-base metallic powder with spherical shape designed for plasma-transferred-arc (PTA) welding process.

**APPROVALS**

**WELDING POSITIONS**

**TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%)**

Co	C	Si	Cr	W	Fe	Ni	Mo
Rem.	1.5	1.1	30	9	1.4	2	0.9

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>P0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Hardness
As Welded				48 HRc

**REDRYING** Not required

**GAS ACC. EN ISO 14175**