



# CEWELD Powder PTA DUR 6

**TYPE** Gas atomized spherical Cobalt-Chromium-Tungsten alloy.

**APPLICATIONS** CEWELD Powder PTA DUR 6 is a cobalt-base metallic powder with spherical shape and is 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 up to 900 °C, such as tight surface of fittings, valve seats and cones for combustion engines, gliding surfaces metal to metal, highly-stressed hot working tools without thermal shock, milling, mixing and drilling tools

**PROPERTIES** CEWELD Powder PTA DUR 6 deposit can be machined with tungsten tool tips and by grinding. The hardness of the deposit will decrease 16% at 300°C and about 30% at 500°C from approx. 45 HRC in the second layer welded by PTA process. CEWELD Powder PTA DUR 6 is an excellent alloy against thermal shock, abrasion, erosion, corrosion and cavitation at high temperature and excellent resistance to many forms of mechanical and chemical degradation over a wide temperature range, and retains a reasonable level of hardness up to 500°C (930°F).  
**Melting temperature:** 1285 – 1410 °C  
**Density:** 8.44 g/cm<sup>3</sup>

**CLASSIFICATION** EN ISO 14700: P Z Co2

**SUITABLE FOR** Examples include valve seats and gates; pump shafts and bearings, erosion shields and rolling couples. It is often used self-mated.

**APPROVALS**

**WELDING POSITIONS**

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

Co	C	Si	Cr	W	Fe	Ni
Rem.	1	1	28	4	1	2

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Hardness
As Welded				45 HRc

**REDRYING** Not required

**GAS ACC. EN ISO 14175**