



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/cm³

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 _{p0,2} (MPa)	R _m (MPa)	A ₅ (%)	Hardness
As Welded				45 HRc

REDRYING Not required

GAS ACC. EN ISO 14175