

# CEWELD Powder PTA DUR 6



TYPE	Gas atomized spherical Cobalt-Chromium-Tungsten alloy.						
APPLICATIONS	<p>CEWELD Powder PTA DUR 6 is a cobalt-base metallic powder with spherical shape and is designed for plasma-transferred-arc (PTA) welding process.</p> <p>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</p>						
PROPERTIES	<p>CEWELD Powder PTA DUR 6 deposit can be machined with tungsten tool tips and by grinding.</p> <p>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).</p> <p><b>Melting temperature:</b> 1285 – 1410 °C</p> <p><b>Density:</b> 8.44 g/cm<sup>3</sup></p>						
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)	Rm (MPa)	A5 (%)	Hardness	
	As Welded					45 HRc	
REDRYING	Not required						

GAS ACC. EN ISO 14175