

Dur 6 PTA Powder

CATEGORY Metal Powders

TYPE Gas atomized spherical Cobalt-Chromium-Tungsten alloy.

APPLICATIONS Outstanding alloy against abrasion, thermo-shock and corrosion combined with high temperatures. Dur 6 PTA Powder is the most widely used of the wear resistant cobalt based alloys and exhibits good all-round performance. It is regarded as the industry standard for general-purpose wear resistance applications.

PROPERTIES The alloy 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 600°C. 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).

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

WELDING POSITIONS:



C	Co	Si	Cr	W	Fe
1.1	Rem	1.2	28	5	2

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Hardness HRC		
				20°C	300°C	600°C
AW				40-43	33-36	28-31

AW: as welded

POWDER SIZE RANGE

Distribution grain size				
Size μm*	Size μm*	Size μm*	Size μm*	Size μm*
180-75	150-63	125-53	63-15	45-10

REDRYING TEMPERATURE not required