CEWELD®

Dur 12 PTA Powder

CATEGORY	Metal Powders
TYPE	Gas atomized spherical Cobalt-Chromium-Tungsten alloy.
APPLICATIONS	Steam-valves, high temperature liquid pumps, hot cutting tools, cutting tools for plastic, wood and paper as well as high stressed sealings and sliding surfaces.
PROPERTIES	Outstanding alloy against abrasion, thermo-shock and corrosion combined with high temperatures. The weld deposit can be machined with tungsten tool tips and by grinding. The hardness of the weld deposit will degreas 20% at 600°C and has a nominal hardness of 47-52 HRc at room temperature. The weld deposit is high heat resistant up to 900°C. Dur 12 offers a low coefficient of friction of and exceptional resistance to galling. It has cavitation-erosion resistance ten times that of 304 stainless steel, Dur 12 can be used to protect bearing surfaces in non-lubricating conditions due to its resistance to metal-to-metal wear.
SUITABLE FOR	Dur 12 PTA Powder is typically used for cutting tools that need to withstand abrasion, heat and corrosion. Examples include industrial knives for cutting carpets, plastics, paper and synthetic fibres; and saw tips in the timber industry. It is also used for control plates in the beverage industry, pump vanes, bearing bushes and narrowneck glass mold plungers; and for hardfacing of engine valves, pinch rollers in the metal-processing industries, and rotor blade edges.
APPROVALS	CE approved
WELDING POSITIONS:	

C	Co	Si	Cr	Ni	W	Fe
1.4	Rem	1.5	29	-	8	2.0

MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ (N/mm^2)	Rm (N/mm^2)	A5 (%)	Hardness HRc 20°C	300°C	600°C	900°C
AW				49-53		40-42	

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