

Dur 6 Mo (Powder alloy F75)

CATEGORY Metal Powders

TYPE Gas atomized spherical Cobalt-Chromium-Molybdenum alloy.

APPLICATIONS PTA and or laser overlay welding on wear parts that need to outlast new parts where high temperatures combined with corrosion and wear resistance is required. 3D printing of parts for medical applications as prostatic implants such as replacement hips and knee condyles.

PROPERTIES CoCrMo alloys are non magnetic and offers extreme resistance against fatigue. The alloy offers excellent polishing characteristics and ensures long tool life.

CLASSIFICATION

AWS	ASTM F75 - F1537 UNS R31538
EN ISO	5823-12 5832-4

SUITABLE FOR Replacement hips, knee parts, condyles, Gas turbine parts, fuel nozzles, orthopedic implants.

APPROVALS CE approved

WELDING POSITIONS:



MAIN CHEMICAL COMPOSITION

Co	Cr	Mo	Ni	Fe	Si	Mn	Ti	W	N	C	S
Bal.	26.5-30.00	4.50-7.00	<1.00	<1.00	<1.00	<1.00	<0.10	<0.20	<0.20	0.12-0.15	<0.01

MATERIAL PROPERTIES:

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V -20°C	Density g/cm ³	Melting range °C	Hardness HRc
SR: 1hr/750°C	850	1100	12			1350-1430	35-42

SR: stress relieved

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