

COBALT BASE COMPONENTS



Brand ID	Metal Grade	Chemical Composition(Weight%)									Hardness HRC	Application	Reference Standard
		C	Cr	W	Si	Fe	Mo	Mn	Ni	Co			
HCS 1Z	Co101	2.5	29	12	1	3	1	1	3	Bal	48-53	Used for working condition without thermal and mechanical shock exists, e.g. pump shaft sleeve, rotating sealing seat ring, wear-resistance gasket, bearing bush, homogenize pars, galvanized iron pot roller, plastics extruder gasket.	
HCS 3Z	Co103	2.5	30	12.5	1	3	1	1	3	Bal	48-53		
HCS 4Z	Co104	0.9	32	14	1	1	0.5	0.5	0.5	Bal	43-47	Used in hot pressing for mechanical shock, e.g. hot pressing and extruding copper/aluminum alloy die, zinc-plating equipment bearing, cell die, etc.	
HCS 6Z	Co106	1.2	29	4.5	1.5	3	1.5	1	3	Bal	≥37	Used to produce steam and chemical valve seats.	AMS 5387C UNS R30006
HCS12Z	Co112	1.6	29	8	1.5	2.5	1	1	3	Bal	45-50	Used to produce hot extruding die, zinc-plating equipment bearing, etc.	
HCS20Z	Co120	2.5	32	17	1	2.5	1	1	2.5	Bal	52-58	Used for working condition without thermal and mechanical shock exists, e.g. pump shaft sleeve, rotating sealing seat ring, wear-resistance gasket, bearing bush, homogenize pars, galvanized iron pot roller, plastics extruder gasket, Copper extrusion die core, plastics injection bushing.	
HCS21Z	Co121	0.25	27	--	1	3	3.5	1	2.75	Bal	≤34	Used in steam turbine blade, brass casting die, hot extruding die and orthopedic implant joint	AMS 5385G UNS R30021
HCS31Z	Co131	0.5	25.5	7.5	1	2	0.5	1	10.5	Bal	≤34	Used in steam turbine blade, shaft sleeve and hot extruding die, etc.	AMS 5382H UNS R30031
HCS33Z	Co133	2.3	33	17.5	1	2	--	0.8	1	Bal	≥52	Used in high temperature bushing of Fluidized bed thermocouples, food homogenizer collision ring, etc.	
HCS400Z	Co193	0.04	8	--	2.6	≤2	27	--	--	≥62	52-55	Engine Valve seat ring	SAE J775 UNS R30400 T400
HCS800Z	Co180	0.1	18	--	3	≤2	28.5	--	≤1	Bal	≥50	Used in high temperature and corrosion-resistant valve gate, valve board and plastics extruder gasket	T800