



Cobalt Chrome Molybdenum CoCrMo

Features.

The cobalt-chromium-molybdenum alloy (CoCrMo) is a so called super alloy for high temperature applications. It combines resistance to extreme high temperatures and gives high corrosion resistance.

The CoCrMo Cobalt Chrome super alloy gives your parts very good mechanical properties even at high temperatures.

Components designed to utilise CoCrMo are ideal for applications that are subjected to a combination of thermal, mechanical and corrosive stress. CoCrMo alloys are often used in applications where components are highly stressed, including aviation, and designs for engine construction.

Heat Treatment.

Heat treatment through the "solution annealing" process gives improved elongation at break.

Chemical Composition:

Cr	Mo	Ni	Fe	C	Si	Mn	Co
26.5 - 30%	4.5 - 7%	1%	1%	0.2%	1%	1%	Bal

Mechanical Properties:

Material Property	Unit	As Built	Solution-annealed
Tensile Strength	MPa	1100 ± 100	1100 ± 100
Yield Strength (Rp 0.2%)	MPa	660 ± 50	600 ± 50
Elongation at Break	%	9 ± 3	35 ± 10
E-Modulus E	GPa	205 ± 80	220 ± 50
Hardness	HRC	31	26
Density	G/Cm3	ca.8.3	ca.8.3

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This data sheet contains approximate values. These values are influenced by part's geometry, additives, and environmental influences. They were developed based on current experiences and knowledge. Therefore, the above mentioned properties cannot be claimed legally binding nor can a definite purpose be derived.