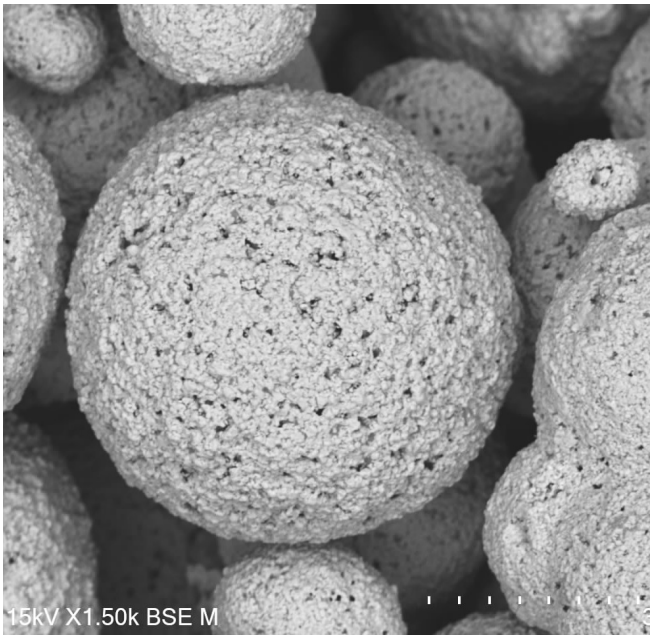
Material Product Data Sheet

Tungsten Carbide Cobalt Chrome (WC-10Co-4Cr)

POWDERLOOP

Product Features

WC-10Co-4Cr powder is used to create dense, hard coatings with superior wear, erosion, and corrosion resistance. Its benefits include enhanced toughness due to the cobalt binder, improved corrosion resistance from the chromium content, and the ability to form coatings with very low porosity, high bond strength, and a smooth, polishable surface. These characteristics make it a durable and environmentally friendly alternative to traditional hard chrome plating. Service up to 500 °C (930 °F). ”F” products have submicron carbides.



Typical Uses and Applications

For protecting critical parts in the oil and gas (valves, shafts), aerospace (landing gear), mining (drilling tools), and power generation industries (turbine components).

Chemical Composition

	W	Co	Cr	Total C	O	Fe
P-WC104	Bal.	9.0-11.0	3.5-4.5	5.0-5.8	≤0.1	≤0.5
P-WC104-F	Bal.	9.0-11.0	3.5-4.5	5.2-5.8	≤0.1	≤0.5

Physical Characteristics

	Manufacturing method	Nominal particle size (µm)	Typical flow rate (s/50g)	Typical apparent density (g/cm^3)
P-WC104	Agglomerated & sintered	-45/+15, -105/+45	13.2	4.4-5.3
P-WC104-F	Agglomerated & sintered	-45/+15, -105/+45	11.3	4.9-5.8

Other size on request

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