PMET 86-10-4 / WC-10Co-4Cr HVOF Powder

September 2025

PRODUCT OVERVIEW

PMET 86-10-4 is a tungsten carbide-cobalt-chrome powder specifically designed for HVOF systems. It produces a hard, abrasive and corrosion resistant coating, with a service environment up to 850° F (450° C). High chrome like fin-ishes can be obtained by typical grinding or lapping techniques. PMET 86-10-4 is ideal for use in a wide variety of ero-sive and abrasive wear applications and corrosive environments. It should be used where added corrosion protection is required versus 88WC-12Co coatings. It has proven to be an excellent alternative to hard chromium plating.

TYPICAL DEPOSIT CHARACTERISTICS

- ⇒ Typical Hardness: HRC 70
- ⇒ Bond Strength: 10,000+ psi
- ⇒ Powder Coverage: 0.16 lb/ft^2 / .001" thickness

POTENTIAL SAFETY HAZARDS:

Observe safe spraying practices. See Polymet material safety data sheet for details.

APPLICATION

- ⇒ Hard chrome replacement
- ⇒ Fan blades
- ⇒ Compressor shafts
- ⇒ Ball and gate valves
- ⇒ Oil field apparatus

POWDER MORPHOLOGY

Agglomerated and sintered

NOMINAL CHEMICAL COMPOSITION (wt%)

WC	Co	Cr
BAL	9.0-11.0	3.5-4.5

APPARENT DENSITY:

3.7-4.1 (g/cm3)

RECOMMENDED SPRAY PARAMETERS:

Parameters vary depending on equipment used. Contact your equipment manufacturer for optimum spray parameters.

STANDARD SIZES & PACKAGING:

Particle Size	Packaging	Part Number
-45/+15 microns	10 lb bottles	86104POWDER01

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