

Tungsten Carbide, Cobalt Powder Made for the Thermal Spray Process

TeroJet[®] 55 588

HVOF Powder



COATING

- Excellent bond strength to most base metals
- Very good abrasion resistance
- May be used with some non-hvof application systems



DESCRIPTION:

TeroJet 55 588 is an agglomerated and sintered Tungsten Carbide-Cobalt powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55 588 powder may also be applied using high energy, low velocity combustion or plasma NTA systems.

Each lot of powder is subjected to extensive quality checks to insure a consistent particle size distribution and chemical composition. The powder is essentially spherical in shape. The HVOF coatings produced are hard, dense and will exhibit high bond strengths to a wide variety of base metals. Exceptional resistances to low stress abrasion, fretting wear and hard particle erosion can also be expected.

TECHNICAL DATA:

COATING PROPERTIES:

Micro Hardness: 1000-1200 DPH 100g
Hardness / R15N: 90-93 (HRC 59-67 converted)
Bond Strength: >10,000 psi (ASTM C633)
Porosity: <2 %
Coating Density: 14.0 g/cm³
Service Temperature: 1020°F / 549°C (Max)
As-Sprayed Roughness: 175 micro-inches AA
As-Ground Roughness: <10 micro-inches AA
As-Ground and Lapped: <5 micro-inches AA
Wear Resistance: 9-11 x 10⁻³ mm³ Volume Loss
(ASTM G65, Sch. A)

POWDER PROPERTIES:

Nominal Composition: Tungsten Carbide
Cobalt
Bulk Density: 4.2 - 4.8 g/cm³

PROCEDURES FOR USE

FINISHING PROCEDURE:

Coating of 55 588 should be finished by grinding using diamond wheels or belts with flood coolant. Follow the tool manufacturer's recommendations for speeds and feeds.

TYPICAL APPLICATIONS:

- Knife Blades
- Oil Field Apparatus
- Pump Seals
- Capstans and Pulleys
- Exhaust Fan Blades
- Extrusion Dies
- Compressor Rods

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