



Chromium Carbide, Nickel Chromium
HVOF Thermal Spray Powder

TeroJet 55575



- Excellent for hard chrome plating replacement
- Very good abrasion resistance
- May be used with some non-HVOF application systems
- Hard, dense coatings with excellent corrosion resistance

TeroJet 55575

TeroJet 55575 is an agglomerated and sintered Chromium Carbide-Nickel Chromium Alloy powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55575 powder may also be applied using 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 strength to a wide variety of base metals. Exceptional resistances to fretting, abrasion, oxidation and high temperature corrosion can also be expected.

TECHNICAL DATA

Typical Values	
Microhardness:	900-1000 DPH 100g
Hardness / R15N:	87-89 (HRC 53-57 converted)
Bond Strength:	>10,000 psi (ASTM C633)
Porosity:	< 3 %
Coating Density:	6.4 g/cc
Bulk Density:	2.9 - 3.4 g/cc ³
Service Temperature:	1500°F / 815°C (Max)
As-Sprayed Roughness:	175-200 micro-inches AA
As-Ground Roughness:	< 10 micro-inches AA
As-Ground and Lapped:	< 5 micro-inches AA
Wear Resistance: (ASTM G65, Sch. A)	25-28 x 10 ⁻³ mm ³ volume loss

Powder Properties:

Chromium Carbide, Nickel Chromium

PROCEDURE FOR USE:

Finishing Procedure

Coatings of TeroJet 55575 may be finished by grinding using silicon carbide wheels with flood coolant. Diamond wheels or belts may be used as an alternative. Follow the tool manufacturer's recommendations for speeds and feeds.

TYPICAL APPLICATIONS

- Marine and Truck Diesel Valve Stems
- Chrome Plating Replacement Applications
- Compressor Rods
- Hydraulic Cylinders
- Ball Valves
- Sucker Rods

When applying 55575 powder via the HVOF process, respiratory, hearing and eye protection is required. For general guidelines consult AWS Publication C2.1-73 and AWS T5S-85, "Recommended Safe Practices for Thermal Spraying and AWS T5S-85, "Thermal Spraying, Practice, Theory and Application." Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations. DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic web site for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.

