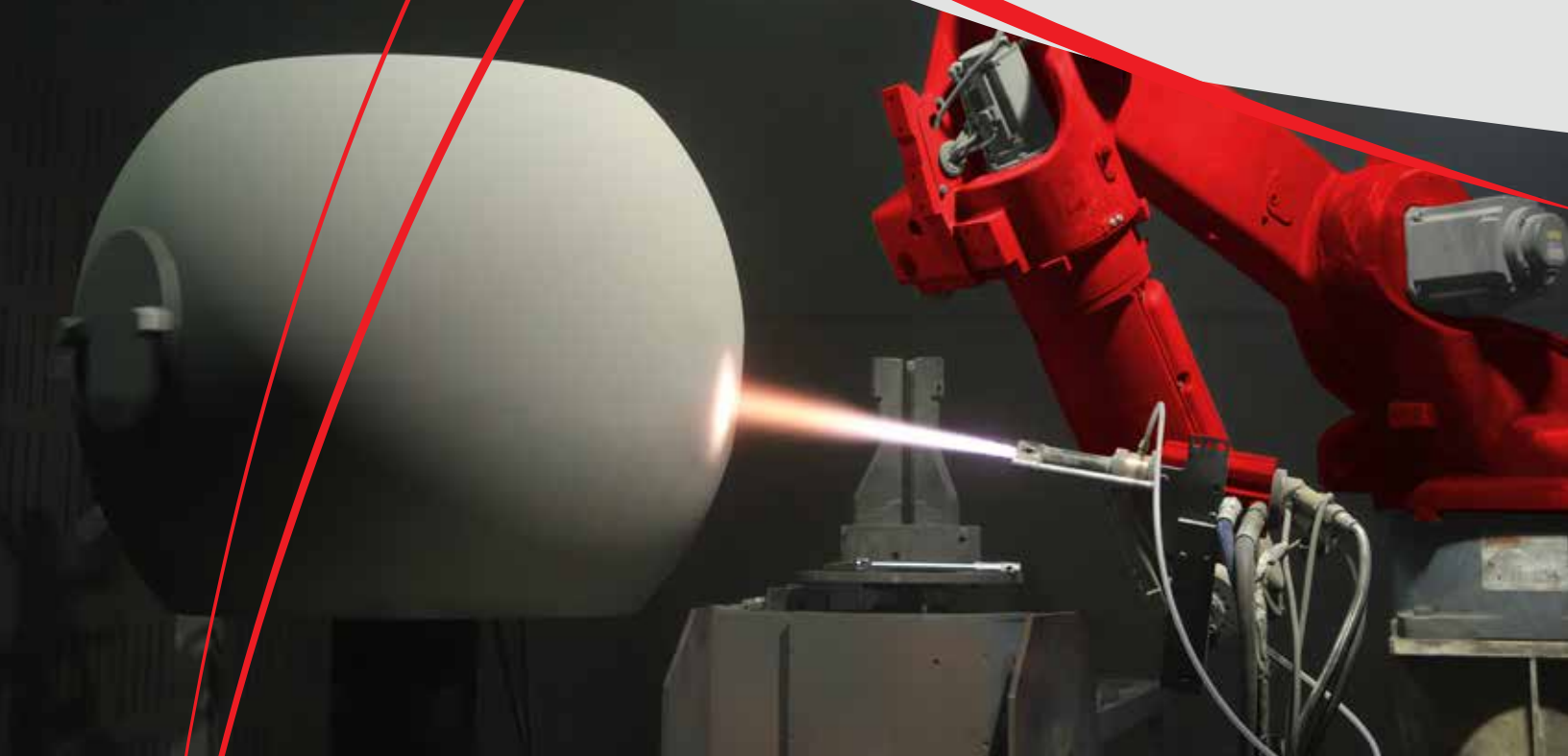




Gas Atomized, Nickel-Chromium
HVOF Thermal Spray Powder

TeroJet 55125



- Hard, dense coatings with excellent corrosion resistance
- Oxidation resistant up to a temperature of 1600° F
- May be used with some non-HVOF application systems
- Resistant to mild abrasion

TeroJet 55125

TeroJet 55125 is a gas atomized Nickel Chromium alloy powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55125 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. The chemical composition is comparable to AWS A5.14 class ERNiCrMo-3. The HVOF coatings produced are suitable for a wide range of applications requiring resistance to alkaline, acidic and aqueous salt environments. Coatings of 55125 are oxidation resistant up to a temperature of 1600°F.

TECHNICAL DATA

Typical Values	
Microhardness:	650 DPH 300g
Hardness / R15N:	78 (HRC 35 converted)
Bond Strength:	>5,000 psi (ASTM C633)
Porosity:	< 3 %
Oxide Content:	< 2 %
Coating Density:	8.1 g/cc
Service Temperature:	1600°F / 871°C (Max)
As-Sprayed Roughness:	200 micro-inches AA
As-Ground Roughness:	< 40 micro-inches AA
As-Ground and Lapped:	< 10 micro-inches AA
Hall Flow:	16-19 seconds / 50g

Powder Properties:

Nickel, Chromium, Molybdenum, Carbon, Iron, Nb+Ta

PROCEDURE FOR USE:

Finishing Procedure

Coatings of TeroJet 55125 may be finished by machining using carbide tools. Use flood coolant and do not overheat the coating. A finer finish is possible by rough machining using carbide tools followed by grinding. Follow the tool manufacturer's recommendations for speeds and feeds.

TYPICAL APPLICATIONS

- Pollution Control Equipment
- Paper Mill Digesters
- Chemical Process Equipment
- High Temperature Environments
- Dimensional Restoration of Alloy 625 Turbine Parts
- Pump Shafts

When applying 55125 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.



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