

Gas Atomized, Type 316L Stainless Steel Alloy Made for the Thermal Spray Process

TeroJet[®] 55 116

HVOF Powder



COATING

- Gas atomized 316L stainless steel powder
- Protective against fretting, cavitation and erosion
- Good for dimensional repair and build-up
- Applicable for some non-HVOF spray systems



DESCRIPTION:

TeroJet 55 116 is a gas atomized Type 316L stainless steel powder designed specifically for application via thermal spraying. Optimum coating results will be achieved using HVOF. However, 55 116 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 suitable for a wide range of applications requiring resistance to corrosion, cavitation and erosion.

TECHNICAL DATA:

COATING PROPERTIES:

Micro Hardness: 375 DPH 300g
Hardness / R15N: 73 (HRC 27 converted)
Bond Strength: >5,000 psi (ASTM C633)
Porosity: < 3 %
Coating Density: 7.6 g/cc
Service Temperature: 1000° F / 538° C (Max)
As-Sprayed Roughness: 200 micro-inches AA
As-Ground Roughness: < 40 micro-inches AA
As-Ground and Lapped: < 10 micro-inches AA

POWDER PROPERTIES:

Nominal Composition:
Nickel
Chromium
Molybdenum
Carbon
Iron

Hall Flow: 20-25 Seconds / 50 g

PROCEDURES FOR USE

FINISHING PROCEDURE:

Coatings of 55 116 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:

- Pump Impellers and Plungers
- Seal Rings
- Cylinder Liners
- Dimensional Restoration
- Turbine Buckets and Nozzles

HEALTH & SAFETY:

HAZARDS

When applying 55 116 powder via the HVOF process, respiratory, hearing and eye protection is required. For general guidelines consult AWS Publication C2.1-73 and AWS TSS-85, "Recommended Safe Practices for Thermal Spraying and AWS TSS-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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Eutectic Corporation
N94 W14355 Garwin Mace Drive
Menomonee Falls, WI 53051 USA
P 800-558-8524 • F 262-255-5542
www.eutectic.com

Eutectic Services
12300 Carmen Avenue
Milwaukee, WI 53225 USA
P 800-558-8524 • F 262-255-5542



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