

Composite Alloy Powder for the Plasma Transferred Arc (PTA) Process

EutroLoy[®] 16457



COATING

- Custom metal powder for surfacing extrusion screws used in plastic and rubber processing
- Increased wear resistance due to addition of tungsten carbide
- Excellent resistance to erosion, abrasion and corrosion
- Suited for wear applications where a higher service life is required
- Grinds to a high surface finish



DESCRIPTION:

EutroLoy 16457 is part of a complete range of alloys specifically developed for coating extrusion screws via Plasma Transferred Arc (PTA) process.

The chemistry and particle size of this powder is carefully controlled to ensure consistent high quality coating properties.

EutroLoy 16457 guarantees high abrasion resistance due to the addition of extremely hard tungsten-carbide particles with excellent corrosion resistance. It can improve screw life up to 2-3 times.

COATING PROPERTIES:

Hardness:	45 HRC
Deposit Density:	10.0 g/cm ³ (0.36 lb/in ³)
Particle Size:	-180 + 63 µm (-80 +230 mesh)
Max. Service Temp:	650°C (1200°F)
Hall Flow Rate:	19 sec/50g
Deposition Rate:	2.27 - 9 kg/hr (5 - 20 lb/hr)
Typical Chemistry:	
Matrix:	Nickel Chrome Boron Silicon Iron Carbon
Carbide:	15% WC-W2C (<i>Cast Tungsten Carbide</i>)

PROCEDURE FOR USE:

Remove damaged material. Clean areas to be welded. Match heat input during welding to component dimensions. Follow the prepared welding procedure for the specific base metal chemistry. Keep dilution with base metal low. Allow workpiece to slowly cool upon completion of welding.

It is important that amperage and voltage be kept as low as possible to maintain WC integrity, while maintaining a well bonded overlay.

FINISHING:

Coatings of EutroLoy 16457 can be finished by grinding.

TYPICAL APPLICATIONS:

- For PTA welding of non-alloy, low-alloy and high-alloy steels and similar castings
- Decanter and transport screws and augers
- Extrusion screws used in plastic and rubber processing
- Down-hole drilling components

HEALTH & SAFETY:

To ensure a safe work environment observe normal welding practices, provide appropriate eye, hearing, skin and respiratory protection and pay attention to air flow patterns. For general weld practices, refer to ANSI Z49.1:2012 - "Safety in Welding, Cutting, and Allied Processes". Welding is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting operations.

DO NOT operate your equipment or use the material supplied, before you have thoroughly read the equipment instruction manual.

Contact Eutectic for Material Safety Data Sheet (MSDS) information.

DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH

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Eutectic Canada
Eastern Canada
428, rue Aime Vincent
Vaudreuil-Dorion, Quebec
Phone: (800) 361-9439
Fax: (514) 695-8793

Eutectic Canada
Western Canada
7722 - 69 Street
Edmonton, Alberta
Phone: (800) 661-3620
Fax: (780) 465 8076

www.eutectic.ca