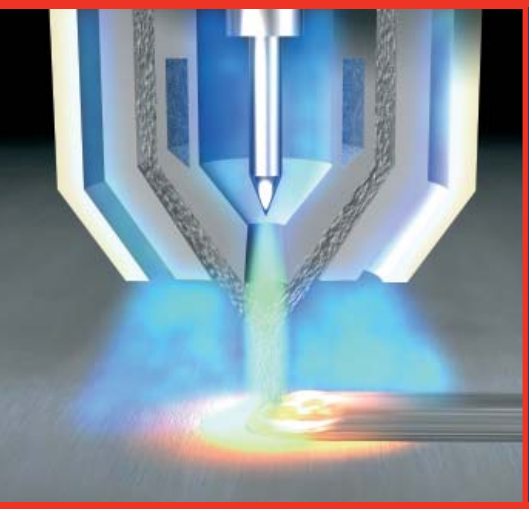
Plasma Transferred Arc (PTA) Coating Products



Eutroloy® and CPW Powder Alloys for Coating

Castolin Eutectic®
Eutectic Castolin

Eutroloy 16001: A cobalt 1-type alloy designed for high abrasion and severe corrosion applications.

Nominal Chemistry: Co + 48% (Cr, W, Fe, Si, Ni, Mo, Mn, C)
Typical Applications: Pressure Dies, Valve Seats, Ball Valves, Auger Screws, Grinding abrasion applications including dry and wet erosion.

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 52	- 80 + 270 Mesh	N/A	1800°F (980°C)

Eutroloy 16006: A Cobalt 6-type alloy designed for metal-to-metal wear applications involving heat and corrosion. Excellent anti-galling and adhesive wear resistance.

Nominal Chemistry: Co + 38% (Cr, W, Fe, Si, Ni, Mo, Mn, C)
Typical Applications: Forging Dies, Valve Seats, Valve Trim, Conveyor Screws

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 42	- 80 + 270 Mesh	N/A	1800°F (980°C)

Eutroloy 16012: A cobalt 12-type alloy designed for a combination of abrasion & friction, with moderate-to-good corrosion resistance.

Nominal Chemistry: Co + 53% (Cr, W, Fe, Si, Ni, Mo, Mn, C)
Typical Applications: Valve Seats, Guide Bars, Billet Saw Teeth, Screws

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 46	- 80 + 270 Mesh	N/A	1800°F (980°C)

Eutroloy 16113: Blend of 60% cast and crushed tungsten carbide plus NiBSi alloy powder. Coatings are resistant to abrasion and erosion and can tolerate mild levels of impact.

Nominal Chemistry: 60% WC-W_2C + (Ni, B, Si)
Typical Applications: Mixer Paddles, Screw Flights, Drill Stabilizers, Fan Blades

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 54	-100 + 325 Mesh	13 mm^3 vol. loss	1200°F (650°C)

Eutroloy 16220: Proprietary nickel-base alloy with special alloying additions to allow easier welding to cast iron.

Nominal Chemistry: Ni + 11% (B, Si)
Typical Applications: Cast Iron Glass Molds

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 25	-100 + 325 Mesh	N/A	1400°F (760°C)

Eutroloy 16221: Proprietary nickel-base alloy with special alloying additions to allow easier welding to cast iron.

Nominal Chemistry: Ni + 13% (Cr, B, Si)
Typical Applications: Cast Iron Glass Molds

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 30	-100 + 325 Mesh	N/A	1400°F (760°C)

Eutroloy 16227: Proprietary nickel-base alloy with special alloying additions to allow easier welding to cast iron. Formulated with a higher hardness and greater toughness.

Nominal Chemistry: Ni + 15% (Cr, B, Si)
Typical Applications: Cast Iron Glass Molds

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 35-40	-100 + 325 Mesh	N/A	1400°F (760°C)

Eutroloy 16300LC: Gas atomized, type 316L stainless steel powder for use as a cushion layer or when a machinable corrosion resistant deposit is required.

Nominal Chemistry: Fe + 30% (Cr, Ni, Mo)
Typical Applications: Ideal for re-builds on shafts, valve bodies, stirrers, mixer paddles

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRB 80	-80 + 270 Mesh	N/A	1500°F (815°C)

Eutroloy 16410: Multi-component iron-base alloy with Mn & Cr for enhanced properties. Deposits exhibit a tempered martensitic structure with good wear resistance.

Nominal Chemistry: Fe + 15% (Cr, C)
Typical Applications: Ideal for re-builds on shafts, valve bodies, stirrers, mixer paddles

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 35	-80 + 270 Mesh	N/A	1000°F (540°C)

Eutroloy 16495: Hard, wear resistant nickel-base alloy coating suitable for applications requiring resistance to abrasion and erosion.

Nominal Chemistry: Ni + 24% (Cr, B, Si, Fe, C)
Typical Applications: Screw Flights, Wear Rings, Brick Dies

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 50	-100 + 325 Mesh	N/A	1020°F (550°C)

Eutroloy 16496: Hard, wear resistant nickel-base alloy coating suitable for applications requiring resistance to abrasion and erosion.

Nominal Chemistry: Ni + 27% (Cr, B, Si, Fe, C)
Typical Applications: Screw Flights, Wear Rings, Brick Dies, Steel Mill Rolls

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 58	-100 + 325 Mesh	N/A	1200°F (650°C)

Eutroloy 16496A: Equivalent to Eutroloy 16496 but sized specifically to reduce anode build-up when using the GAP 375 Process. Coated parts should be finished by wet grinding.

Nominal Chemistry: Ni + 27% (Cr, B, Si, Fe, C)
Typical Applications: Cam Lobes, Valve Stems & Seats, Plug Gauges

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 58	-100 + 325 Mesh	N/A	1200°F (650°C)

Eutroloy PG 5224: A proprietary, non-magnetic composite nickel-base alloy containing a discrete fraction of tungsten carbides.

Nominal Chemistry: 25% WC-W_2C in a Ni Cr, B, Si, Fe, C matrix
Typical Applications: For specialized "down-hole" tool drilling

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 50	-100 + 325 Mesh	N/A	1020°F (550°C)

Eutroloy PG 6503: Blend of 60% cast and crushed tungsten carbide plus NiBSi alloy powder. Coatings are resistant to abrasion and erosion and have improved wear resistance and can tolerate greater levels of impact compared to 16113.

Nominal Chemistry: 60% WC-W_2C + Ni, B, Si matrix
Typical Applications: Oil Sand Processing Equipment, Mixer Paddles

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 50	-100 + 325 Mesh	13 mm^3 vol. loss	1200°F (650°C)

Eutroloy PG 6504: A blended powder consisting of a nickel chrome matrix with 60% by weight cast and crushed tungsten carbide.

Nominal Chemistry: Ni-Cr-B-Si 40% alloy matrix with 60% WC-W_2C
Typical Applications: Stabilizer and Hardbanding Tools, Decanter Screws, Debarker Knives, Mixer Paddles

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 50	-140 + 325 Mesh	13 mm^3 vol. loss	1200°F (650°C)

CPW 5056: A special nickel-base alloy suitable for use on cast iron, iron-nickel bronze alloy glass mold parts. Deposits are readily machined with standard HSS or carbide tooling.

Nominal Chemistry: Ni + 4% (C, B, Si, Fe)
Typical Applications: Bronze preforming and finishing molds, bottom plates

Typical Hardness	Typical Mesh Size	ASTM Bond Value	Max. Service Temperature
HRC 20	-100 + 325 Mesh	N/A	1000°F (590°C)

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