

Your Trusted Partner for Exceptional Savings & Service



TURNKEY SERVICES

Grinding, Machining, Fabricating & Coating
Application Engineering Support
Chemical & Metallurgical Laboratory Services: X-Ray, Salt Spray, ETC Inspection
Part Evaluation and Testing

EXCEPTIONAL CUSTOMER SERVICE GUARANTEED

On-time Delivery 99.983% since 1995
Acceptance Rating 99.986% since 1995
3-5 Day Standard Turnaround
We do not charge expedite fees



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THE SCIENCE OF PRECISION COATINGS

ARMOLOY (TDC) Thin Dense Chromium Coating for superior metal protection, friction reduction, wear & corrosion resistant solutions

www.armoloyofohio.com



ARMOLOY®

TDC MAKES METAL PARTS LAST LONGER WITH IMPROVED PERFORMANCE

Armoloy Thin Dense Chromium (TDC) is a low-temperature, multistate surface finishing process. Employed as the finishing step for machine parts and manufacturing components, Armoloy imparts a satiny, silver matte, micronodular finish that permeates the surface of metal components. Precise deposits ensure fidelity to part contours and details, without the edge build or “dog-boning” associated with conventional chrome-plating processes resulting in a hard (78Rc), slippery, and corrosion-resistant tool surface.

Armoloy TDC coated parts reduce friction and last longer. Where Armoloy TDC coated parts run against each other, the coating's natural characteristics are enhanced, further reducing friction and significantly prolonging tool life. Armoloy TDC makes all metal parts – better.

MANUFACTURING METALS IDEAL FOR ARMOLOY TDC

- **Ferrous Metals:**
Tool Steels 4140, D-2, P-20, A-2, H-13, etc., Cold Roll/Hot Roll, Bearing Steels (52100, 8620, etc.), Alloy-enhanced Steel, Stress-Proof, High Carbon/ Low Carbon Steel & Cast Irons
- **Non Ferrous Metals:**
Stainless Steels (Inconel, 17-4, 15-5), Mold Steel NAK55, Beryllium, Ampco®, MoldMax®/ Protherm® Copper and Copper Alloys, Bronze & Brass

**NOTE: Aluminum, magnesium & titanium substrates are not recommended for the Armoloy TDC.*

FOOD, SAFETY & CLEANLINESS

FDA/USDA approved for use, without concern, on food processing equipment, in clean room environments and in medical / pharmaceutical applications. Independent testing has proven no issue of toxicity or skin irritation in Armoloy TDC coated parts.



USDA Certified for Food Processing

KEY FEATURES & BENEFITS

- **REDUCED MAINTENANCE AND PART REPLACEMENT COSTS**
- **Longer Lasting**
78Rc surface hardness reduces wear
- **Reduced Friction**
added lubricity reduces friction 25-50% in moving parts
- **Absolute Adhesion / Increased Durability**
no chipping, cracking, flaking or peeling
- **Improved Release Characteristics in Plastics Forming Tools**
cores, cavities, lifters, pins, screws, plates and patterns
- **Corrosion Resistant**
resists attack by most organic and inorganic compounds. Tested in accordance with ASTM-B117 and AMS-2438

IMPROVE YOUR METAL PARTS WITH ARMOLOY TDC

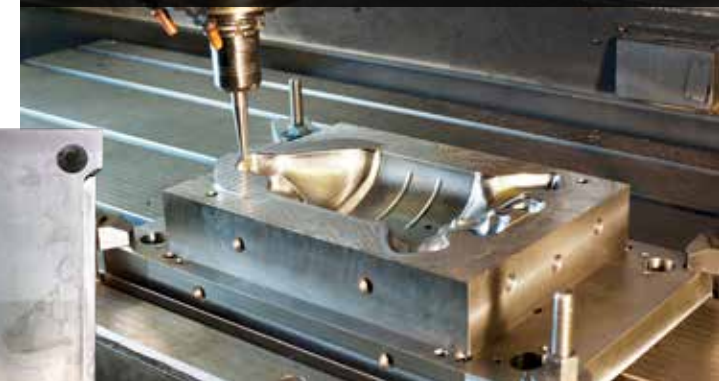
Quick Facts

- Withstands Temperatures of -400°F to 1600°F (240°C to 871°C)
- Applied at 135°F
- 78Rc Wear-Resistant Hardness
- Uniform Deposits:
 - Deposit thickness: .00005” – .0003” (1µm-7µm)
 - Holds Tolerances to 0.00005
- Eliminates Distortion
- Prevents Hydrogen Embrittlement
- Stripped & Reapplied without affecting base material
- Certifies to AMS-2438, AMS QQ-C-320, AMS-2406, and most military/industrial specifications
- Vickers Diamond: 1360 / 1400
- Coats Nitride Surfaces
- Not Affected – tensile, yield or fatigue properties of the basis metal.
- No Need for Pre-or-Post Machine Operations
- No Edge Buildup
- No Bridging Characteristics
- Not Affected by Most CIP Solutions
- Prevents Galvanic Corrosion

14 ft. 1,950 Gallon Processing Tank



Increased Wear & Lubricity on Dies & Molds



Rubber Injection Dies Have Higher Volume Output

INDUSTRIES:

Armoloy TDC is proudly serving these demanding industries: Aerospace, Food Processing, Metalcasting/ Die Casting, Nuclear/ Power Generation, Textile, General Manufacturing

APPLICATIONS:

Mixers & Blades	Equipment
Bearing races, rollers & surfaces, emulsifiers, positive displacement pumps, extruders, mold machines, packaging, pistons, weigh hoppers	Molds– Plastic, Rubber, Injection, Extrusion, Compression, Insert
Bushings	Gauges
Compressor Components	Gears & Sprockets
Cutting Tools	Hydraulic Cylinders / Rods
Cylinders	Nuclear Components
Die Cast Dies	Pump Housings / Impellers, Rotors
Metalcasting Cores, Molds & Patterns, Foundry Tooling/ Equipment	Injection Screws
Textile Industry Components	Valves