

**M**  
**E92**  
OPERATIONS

# The First Company to Bring Biocompatible Chromium Coatings to the Medical Community

## Our Standards Make Us the Best in Class

ME-92 Operations began offering the ME-92® Coating in 1992 and was the first company to bring biocompatible, chromium coatings to the medical community. ME-92 Operations has become the preferred coating provider to leading medical companies serving all major medical disciplines. Our Mission: To provide functional coatings that enhance the overall performance of medical instrumentation, while meeting our customers' expectations of quality and affordability.

Through continued research and development, ME-92 Operations expanded ME-92® finish options from the original Satin, to include Non-Reflective and Platinum finishes. These finish options offer the same long-lasting protection as the original ME-92® Satin, each suited to specific instrument functionality applications.

Most recently, ME-92 Operations began offering a coating for aluminum that enables medical device engineers to reduce instrument weight, while maintaining its high level of performance. ALCOAT® is a pure chromium coating that imparts a very hard and durable 80Rc surface to aluminum, and also comes in the same three finish options as the ME-92® coating.

ME-92 Operations is an ISO 9001:2015 registered company that completed Process Validations in accordance with the Global Harmonization Task Force GHTF/SG3/N99-10:2004 and 21 CFR Part 820.

## Biocompatibility

ME-92 Operations was the first chrome coating company to perform and pass the Tripartite Guidelines testing for biocompatibility. The current standard is ISO 10993 and the ME-92® and ALCOAT® Coatings have successfully passed the requirements for biocompatibility to this standard.

Anti-Microbial Technology Research concluded that the ME-92® Coatings:

- Reduced bacterial adherence
- Facilitated easier cleaning and decontamination
- Maintained the surface integrity after repeated sterilization cycles



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## CLASSIFICATION

ME-92<sup>®</sup> is a biocompatible, pure-metallic chromium coating designed to improve the function and appearance of aluminum medical instruments and devices. The coating is completely inert, non-magnetic, USP Class VI, Tripartite/ISO and Anti-Microbial.

ME-92<sup>®</sup> coating technology is a proprietary process that electrolytically applies a precise, pure metallic, zero-valence chromium coating to the device without altering the integrity of the base material. Processed at a 30,000 sf facility in Providence, Rhode Island in a clean, latex-free environment, ME-92<sup>®</sup> is a licensed product and process developed and managed by The Armoloy Corporation laboratories.

## PROPERTIES

- Arrests corrosion from sterilization and laser marking while maintaining new appearance
- Increases wear resistance
- Provides a hard, scratch resistant, nonstick, easy clean surface
- Increases surface hardness
- Eliminates galling, fretting, spalling
- Ability to remove and reapply
- Arrests metallic debris and particulate matter
- Provides smooth sliding surfaces
- Reduces high intensity light reflection/refraction and glare
- Provides long lasting, clean, pristine new appearance
- Chemical resistant
- Hydrophobic

## THICKNESS

The deposit thickness of the ME-92<sup>®</sup> coating is engineered to meet the specific requirements of each customer. Normal deposit thickness ranges from 0.00004" to 0.001" per side (1.0-25.0 microns). An ME-92 Operations sales engineer will assist you in selecting the proper deposit thickness for your specific application.

## ADHESION

The ME-92<sup>®</sup> coating is bonded directly to the base material. This unique process enables the coating to adhere absolutely. The ME-92<sup>®</sup> coating will not chip, flake or peel. The coating is highly ductile and will not separate from the base material even when twisted, flexed or impacted.

## HARDNESS

The ME-92<sup>®</sup> coating exhibits up to a 80Rc surface hardness providing a durable finish.

The ME-92<sup>®</sup> coating is an excellent candidate for application to nearly every base metal type, from tool steels such as S-7 and H-13, to bearing steels such as 52100 and 8620, to cold rolled, hot rolled, high-carbon and low-carbon steels, stainless steel, bronze, copper, and brass. Absolute adhesion to the substrate is guaranteed. Inquire about our ALCOAT<sup>®</sup> coating for information on coatings for aluminum substrates.

## PRECISION MASKING

Precision masking is specified by designers and engineers to ensure the coating is only applied to the surfaces requiring protection. Parameters for this are defined to ensure minimal variation in the coating process and so that surface characteristics are controlled. ME-92 Operations performs multiple quality checks throughout the process to ensure adherence to customer specifications and to provide the best available finished product.

### THREE FINISH OPTIONS:



**SATIN**



**NON REFLECTIVE**



**PLATINUM**



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