INNOVATORS IN TECHNOLOGY

Metal Improvement Company

Subsidiary of Curtiss-Wright Corporation

Engineered coatings

Performance and protection

Enhancing the performance of metals and materials

www.metalimprovement.co.uk

CURTISS WRIGHT

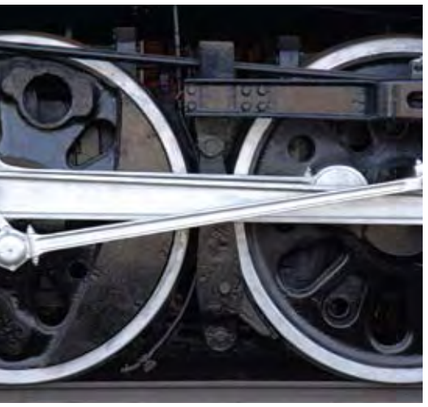
Engineered coatings

Metal Improvement Company (MIC) is a global organisation specialising in surface technologies to enhance performance and extend the life of critical components, enabling component designs to achieve their maximum potential.

MIC offers a quality controlled and cost effective service, working in partnership to meet its customers' needs.

Established in 1945, MIC has over 65 divisions operating in Europe, USA, Canada and Asia with on-site processing worldwide. In 2003, MIC added speciality coating capabilities to its services portfolio and today has coatings divisions in Europe, Asia and Ireland as well as E/M Coating Services facilities in the UK and USA developing and applying a wide range of engineered coatings.

MIC division approvals include: FAA, AS9100, NADCAP, ISO 9001:2008 plus other specific OEM, company and industry approvals as required.



Metal Improvement Company is a subsidiary of the Curtiss-Wright Corporation, a diversified international provider of highly engineered products and services to the Motion Control, Flow Control and Surface Technology industries.

www.curtisswright.com

CURTISS WRIGHT

Metal Improvement Company are pioneers in the development and application of engineered coatings enabling you to protect against corrosion, improve part wear life and performance and also reduce maintenance costs.

MIC has coatings facilities worldwide including E/M Coating Services based in the UK and USA, who are specialists in solid film lubricants and anti-corrosion coatings.

Our Galway, Ireland facility specialises in the application of Parylene, which forms an ultra thin conformal coating used particularly in the medical, aerospace and electronic industries. We have also expanded our coatings capability into mainland Europe.

Our experienced and dedicated workforce will provide you with the very highest levels of quality, service and technical support using the latest technology to ensure long-term environmental compliance.

We have advanced laboratory facilities and expertise to design and develop bespoke high performance coatings tailored to suit your individual requirements as well as being able to offer you a range of standard and licensed coatings.

We offer a comprehensive range of processes that allow us to apply coatings to components of all shapes and sizes from the smallest fasteners to large fabricated assemblies weighing several tonnes.

Quality

We are fully experienced to meet your specifications using the highest quality control procedures. Our facilities have numerous OEM approvals for the application of coatings to aerospace, automotive, medical and other industrial components in addition to FAA, AS9100, NADCAP, ISO 13485 and ISO 9001:9008 approvals that might be required at individual facilities.

Laboratory Testing

Laboratory Testing and process verification include: Salt-Spray ASTM B117, Dry film Thickness by Magnetic Induction and Eddy Current or section method, Coating Weight, Cure testing, Adhesion to ASTM D2510 or ASTM D 3359, Pull Off testing to ISO 4624 or ASTM D4542 Type 5 method E. Holiday testing low voltage and high voltage to NACE SP0188.

Pre-treatments

With surface preparation being essential to the life extension and performance of our coatings technology, correct preparation and enhancement of surfaces prior to coating is carried out.

Pre-treatments include Ti Anodising, Phosphate Conversion Coating, Chilled Iron Blasting, Aluminum Oxide Blasting and vapour degreasing (components up to 1 tonne).

Our range of coatings include:

- Dry film lubricants - MoS_2, PTFE, Graphite and WS_2
- Coatings for corrosion, chemical and environmental protection
- Zinc rich coatings for corrosion protection
- Impingement coatings
- Nonstick/release coatings for low coefficients of friction
- Primers for rubber and plastics for sound absorbing and dampening materials to reduce noise and squeaking
- Coatings for EMI/RFI shielding to control electromagnetic interference
- Coatings to protect against extreme corrodants, corrosive chemicals and solvents
- Ultra thin conformal parylene coating to reduce friction and protect against contamination

Brand and trade names include - Everlube products:

Everlube®, Microseal®, Flurene Lube-Lok®, Lubri-Bond®, Ecoalube®, Ever-Slik®, Esnalube®, Perma-Slik®, Kal-Gard®, Electrobond® and Formkote®.

Other brand names:

Xylan®/Xylar®, Sermagard®, Molykote®, Halar®, Teflon®, Rilsan®, Zinga®, Gleitmo® and PROCOAT100®

BENEFITS

- High lubricity/low friction
- Anti-corrosion
- Resistance to erosion
- Resistance to galling, fatigue and failure
- High release/anti-stick
- Low noise/anti-squeak
- Pinhole free barrier coating
- Resistance chemical and environmental attack
- Protection against chipping and blistering
- Shielding to EM/RF radiation
- Aerospace aluminized coatings

APPLICATIONS

Our engineered coatings are designed to enhance the performance of a wide range of components including:

- Pumps and valves
- Gears
- Bearings
- Fasteners, bolts and locknuts
- Thread rolling screws
- Rivets
- Washers, 'O' rings, gaskets and seals
- Food handling equipment
- Rollers and dyecans
- Airbars
- Magnets
- Centrifuge components
- Medical implant devices
- Circuit boards

MIC MARKETS INCLUDE:

- **Aerospace**
- **Agriculture**
- **Architectural**
- **Automotive**
- **Chemical & food processing**
- **General & structural engineering**
- **Marine**
- **Medical**
- **Military**
- **Off-road & earth moving equipment**
- **Oil, gas & petrochemical**
- **Power generation**
- **Railways**

MIC SERVICES INCLUDE:

- **Controlled shot peening**
  induces engineered residual compressive stresses
- **Shot peen forming**
  creates curvature and corrects distortion
- **Laser peening**
  induces deeper residual compressive stresses
- **Engineered coatings**
  improves performance, prevents corrosion and aids lubricity
- **C.A.S.E. (isotropic finishing)**
  removes surface asperities reducing friction
- **On-site processing**
  provides services on customers' own premises
- **Peentex (architectural finishing)**
  creates decorative and aesthetic texturing
- **Surface texturing**
  applies a textured engineered finish
- **Peenflex mouldings**
  protects against processing and handling damage

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