

# SYNERGIES

VOLUME 19

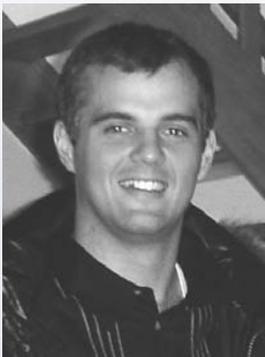
Tomorrow's Materials Solutions...Today.



## GENERAL MAGNAPLATE

COMMITTED TO GLOBAL SUCCESS

General Magnaplate has established a strong foothold across the pond with our European cousins since establishing its first European licensee agreement back in 1978. The company's growing penetration in countries such as the UK, Germany, the Netherlands, Japan and Sweden has unearthed such a strong demand for cutting-edge surface enhancement technology that General Magnaplate is delighted to announce the appointment of a new, dedicated contact for all of its customers and licensees outside of North America.



Operating out of Serbia, **Nemanja Marinkovic** is the newly appointed International Licensee Liaison who will be the global 'face' of the company. As well as identifying new licensees in new countries, Marinkovic will also take on the responsibility of providing marketing support to existing licensees. Nemanja graduated

from Endicott College, Beverly, MA, with a degree in International Business and speaks Serbian, English, Spanish and French.

Candida Aversenti, CEO for General Magnaplate, believes that rapidly changing world markets, together with the increased demand for surface enhancing technology, created the need for such a position.

Aversenti says, "2008 heralds the start of a new era for General Magnaplate outside of North America. Our existing licensees are doing a tremendous job in providing our technology to the manufacturers of Europe and Japan and it's now necessary for General Magnaplate to have a greater global presence. We are also looking forward to identifying new markets and countries as we demonstrate to manufacturers the tremendous benefits to be had from using General Magnaplate coatings."

## ON THE HOME FRONT

The inside sales department at General Magnaplate is one of the great unsung heroes of the company. They are the men and women that prepare your quotations and provide answers to those difficult technical questions. Jeff Palumbo, Sales Manager for General Magnaplate's New Jersey plant, believes that the inside sales team really add a tremendous value to the coating services provided by General Magnaplate.

Says Jeff, "Once the outside technical sales contact has discussed a coating application with a customer and identified the 'cause' of a part failure, it's our job to identify the right coating for the application and provide a price estimate for the customer. In many cases we offer multiple coatings at

different price points so that the customer can make an informed decision and weigh up the cost versus the benefit of different solutions."

"A large part of what the inside sales team does is aiding engineers in the design stages of a project and offer as much of a value added service as possible. This way we can often utilize our technical knowledge base to help foresee possible part problems and take care of the issues before they even arise. Whether it's a five minute consultation or a detailed, technical evaluation, our goal is to build a long-term relationship with the engineers and ensure total customer satisfaction."

If you have a technical issue to discuss with our inside sales team, please contact them today on **Tel. 800 441 6173**.

# PLASMADIZE 2139 PLAYS KEY ROLE IN TOOLING SOLUTIONS

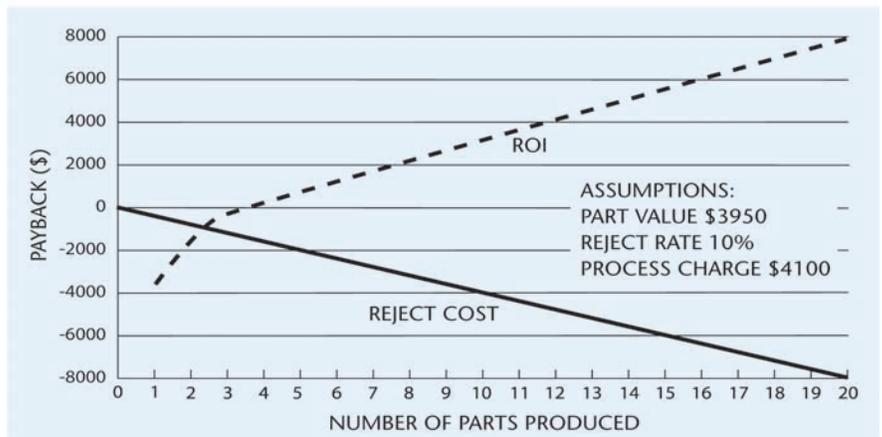
Together with General Magnaplate's patented Custom Moldmaking Process Technology (CMPT®), Plasmadize 2139 is the foundation of the company's Tooling Solutions division. According to General Magnaplate, it's a revolutionary process that incorporates the latest developments in metals, ceramics, polymers, and/or dry lubricants to form true composites.

PLASMADIZE® 2139 is a series of enhanced thermal spray release coatings for metallic and non-metallic tooling designed to replace other sprayed, swabbed or one-time dipped release agents. It can also replace the use of release additives and eliminates the need for cleaning demolded parts, while offering an almost immediate return on investment.

Because parts "pop-off" so effortlessly from molds treated with PLASMADIZE 2139, rejection rates are slashed. Testing demonstrates that a reduction of only 10% in the reject rate will not only immediately pay back the cost of using PLASMADIZE 2139, but that it also significantly improves ROI.

Manufacturers can select either smooth or matte surfaces, and products can undergo final finishing, such as painting, immediately after demolding. Specific coatings are available for use on Invar and ferrous tooling, aluminum and non-ferrous tooling, fiber-reinforced plastic (FRP), plaster and plastic tooling, and General Magnaplate's proprietary CMPT® toolface. The release coating is also field repairable.

## Projected ROI for the 2139 Series of Release Coatings



## TRADE SHOW CALENDAR

**SOUTHPACK 2008**  
 March 19-20  
 Charlotte Convention Center, Charlotte, NC  
 Booth: 2129

**INTERPHEX 2008**  
 March 26-28  
 Pennsylvania Convention Center, Philadelphia, PA  
 Booth: 4105

**EASTPACK 2008**  
 June 3-5  
 Jacob Javits Convention Center, New York, NY  
 Booth: 4331

## JOIN THE CLUB

Engineers are engineers and it's as simple as that. Whether at work trying to solve a new application problem or watching Monday Night Football trying to figure out the force required to move that retractable stadium roof, engineers have a unique perspective on life and are generally extremely dedicated to the 'cause'.

We would like to take this opportunity to demonstrate some of the dedication of General Magnaplate's key personnel and highlight some of the organizations they are involved with.



**Edmund Aversenti, COO**  
 Membership of the following organizations:  
 SAMPE, ASM, ACMA, SPI, SPE, IHAA, ASTM, NACE

**Corey Wesnitzer, Executive VP**  
 Membership of the IDFA, 3A Workgroup 13, ASM



**Larry Campbell**  
 LSBRPELS (Louisiana State Board of Registration for Professional Engineers and Land Surveyors), AIChE, NACE, NASE, ASTM, SAMPE, NJBIA (serving on the New Jersey Business and Industry Association Environmental Committee), LIA (serving as Environmental Committee Chairman for the Linden Industrial Association)



**Fred Mueller**  
 A member of the ASTM's Committee B-8 for Metallic and Inorganic Coatings and a member of the AESF Foundation's Board of Trustees and past President.



# TECHNICAL SPOTLIGHT: LECTROFLUOR

## Copolymer Coatings Provide Superior Corrosion, Chemical Resistance Plus Mold Release



The **LECTROFLUOR** series of high technology, polymer-based, surface enhancement coatings provides superior resistance to metal parts and equipment subjected to corrosion, chemicals and erosive wear (especially from slurries). Coatings in this series also exhibit excellent release characteristics, and many comply with codes for food and pharmaceutical contact.

The **LECTROFLUOR** series of coatings also improves performance of all types of metal. It especially provides superior resistance to severe corrosion and chemical attack in hostile environments, even wash-down solutions.

Some of the coatings exhibit excellent mold release properties. And many of them meet FDA, USDA, NSF and AgriCanada codes — making them ideal for use in food, pharmaceutical and external medical applications.

**LECTROFLUOR** coatings are based on proprietary blends of engineering polymers with a very low coefficient of friction. The metal parts are first cleaned and prepared in specially designed equipment. The selected polymers are then applied by either standard spray methods or by electrostatic spraying, depending on the polymers and the part's end use.

The selection of which polymers to use is based on many factors, including: end-use application of the part, its base metal, the kind of hostile environments to which it might be exposed, and the coating buildup permitted.

## LECTROFLUOR AT A GLANCE



### LECTROFLUOR 601

For maximum corrosion resistance on ferrous and non-ferrous metals over a broad temperature range.

*Properties:* Excellent corrosion, chemical

and abrasion resistance. High oxidative stability. Excellent mechanical toughness and cut-through resistance. Good electrical properties.

*Applications:* Excellent for use with chemical processing equipment, scrubbers, air moving equipment, pumps, lined pipe valves and meter housings, as well as mixing vats.

### LECTROFLUOR 602

Exhibits superior resistance to U/V and radiation as well as to chemicals. Meets FDA/NSF codes.

*Properties:* Superior chemical resistance. Also resists fungus, impact and U/V radiation. Low permeability to most gases and liquids. Excellent dielectric properties.

*Applications:* Thick film recommended for all radiation-resistant applications. Good insulating material for electrical and electronic products, including probes, chassis, mounts, and housings. Ideal for use in medical products.

### LECTROFLUOR 604

Meets USDA/FDA/NSF codes. Offers chemical and corrosion resistance at temperatures to 500°F (260°C). Also exhibits superior mold release.



*Properties:* Very low coefficient of friction. Excellent impact and abrasion resistance. Superior glue and mold release (especially in rubber molding) permits easy cleanup.

*Applications:* Recommended for use in food and drug processing and packaging applications (especially pasta making equipment), as well as in dryers, housings, stirrers, and chemical reaction linings. Dry lubricated surfaces solve sanitation problems.

### LECTROFLUOR 611

Vegetable based coating that meets USDA/FDA/NSF codes. Superior corrosion and fungus resistance.

*Properties:* Superior corrosion and impact resistance. Permits fast, easy cleanup of equipment parts. Resists staining. Selected colors available.

*Applications:* Ideal for sanitation and maintenance in food and drug processing and packaging (especially candy making). Also used in the marine industry, on dishwasher tubs and baskets, on refrigerator shelving, industrial gas tanks, and home appliances.

### LECTROFLUOR 615

Meets USDA/FDA/NSF and AgriCanada codes. Exhibits superior resistance to chemicals and wear at temperatures from -400°F to +550°F (-240°C to +288°C).

*Properties:* Superior mold release unaffected by U/V weathering. Superior cryogenic stability. Excellent heat and chemical resistance. Very low Coefficient of Friction.

*Applications:* Specially developed for food contact applications such as sealing dies, die rolls, stirrers, dryers, hoods, tanks and conveyor system components and rolls in the baking industry.

# AUSTRALIA COUNTRY PROFILE

Following General Magnaplate's mission to explore new and uncharted territories for our surface enhancement coatings, in each issue of Synergies we have brought you an industrial insight on some of the world's 'new' manufacturing markets including India and Brazil. This issue we are exploring Australia and what opportunities lay within for North American companies that have yet to address the prospects down under.

Modern Australia is a little more than two centuries old, but its indigenous history stretches back tens of thousands of years.

**BACKGROUND:** The British founded the first settlement and named it Sydney in 1788 and today Australia is the size of the United States but with the population of New York!

Australia's original inhabitants, the Aborigines, numbered a few hundred thousand before the European influx but today 99% of the Australian population is of European or Asian descent. Australia's economy is also global but geared to Asia. It is a foremost member of Apec, the Asia Pacific Economic Cooperation forum, and aims to forge free trade deals with China and Asean, the Association of Southeast Asian Nations.

The country has considered cutting its ties with the British monarchy. In 1999 Australians narrowly voted against plans for the country to become a republic.

**POLITICAL UPDATE: KEVIN RUDD AND HIS LABOR PARTY SWEEP TO POWER IN ELECTIONS IN NOVEMBER 2007, ENDING MORE THAN 11 YEARS OF CONSERVATIVE RULE.**

**ECONOMY:** Australia has an enviable Western-style capitalist economy with a per capita GDP on par with the four dominant West European economies. Robust business and consumer confidence and high export prices for raw materials and agricultural products are fueling the economy. Australia's emphasis on reforms, low inflation, and growing ties with China are other key factors behind the economy's strength. Drought and strong import demand pushed the trade deficit up in recent

**Full name:** Commonwealth of Australia

**Population:** 21 million (official estimate, 2007)

**Capital:** Canberra

**Largest city:** Sydney

**Area:** 7.7 million sq km (2.9 million sq miles)

**Major language:** English

**Main exports:** Ores and metals; wool, food and live animals; fuels, transport machinery and equipment

**Monetary unit:** 1 Australian Dollar = .86 USD (at time of publication)



years, although the trade balance has improved in recent years.

The Australian economy has expanded for 14 consecutive years; an impressive record of sustained growth. This remarkable performance is set to continue with economic conditions remaining very supportive of growth — corporate profits are high, inflation is moderate and the unemployment rate remains low.

**INDUSTRIAL SECTOR:** Advanced manufacturing tools, technologies and engineering services are predominantly, but not exclusively, found in the following industry segments:

- Precision engineering
- Machine tool manufacture
- Cutting tool manufacture
- Die/mould manufacturing
- Robotics and other automated equipment for manufacture
- General engineering
- Design for manufacture

Australia's advanced manufacturing industry has established an international reputation for its strengths in design, quality, safety, reliability, sophisticated IP protection, customer service, innovative systems, and world-class R&D capabilities.

The sector accounts for around 50 percent of Australia's total manufacturing output and serves a diverse range of industries including aerospace, automotive, mining, machinery, defense, tooling, instruments, chemicals, plastics and appliances.

In 2004-05, Australia's manufacturing industry as a whole contributed 11 percent to Australia's Gross Domestic Product at a value of \$88.3 billion. Manufacturing exports were \$67.4 billion and the industry employed 1.1 million people.

Manufacturing business expenditure on R&D totaled \$3.3 billion in 2004-05. More than \$9 billion was invested on new plant and equipment and foreign investment in manufacturing grew by 6.5 percent to \$23.1 billion.

There are limited statistics on the advanced manufacturing industry, however, in 2004-05 the estimated annual revenue was \$2.84 billion, export revenue was \$537 million and the industry employed some 12,000 people.

For more information, or to request literature on any of our "synergistic" surface enhancement coatings, contact:



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