

Anticorrosion Paints & Coatings





## THE NANOMYTE® ADVANTAGE FOR METAL FINISHING

**NANOMYTE** paints and coatings are an innovative drop-in solution for your metal finishing applications, whether it's preserving aesthetic appearance or maintaining structural integrity. Formulations apply easily to metal substrates by immersion, spray, wipe or brush, even in the field, without special equipment or surface preparation.

Scratch in Topcoat



#### **Self-Healing Provides Active Corrosion Protection**

**NANOMYTE®** paints and coatings are engineered to be self-healing. That means the paint or coating can repair itself if damaged thus providing *active corrosion protection*. For example, if a paint layer or coating surface is marred or scratched, it exposes the underlying bare metal to corrosive liquid

or gas, which leads to rapid corrosion. Through different self-healing mechanisms, the **NANOMYTE** coating layers provide additional protection to the metal. **NANOMYTE** self-healing coatings represent a new class of easy and safe to use coatings that provide exceptional durability.

#### **Chromate-Free Breakthrough**

**NANOMYTE** paints and coatings contain no chromate, but work as well as or better than chromate products to inhibit corrosion of steel, aluminum, magnesium and copper alloys. Since chromate (hexavalent chromium) is known as an environmentally hazardous chemical and carcinogen, it is no longer acceptable for use in the majority of industrial, commercial and military applications. Until now, achieving the required degree of corrosion resistance without the use of chromate has been a formidable challenge.

The **NANOMYTE** line of chromate-free pretreatments, primers and topcoats represent a breakthrough in providing active corrosion protection comparable to chromate.



Typical metal coating system

## NANOMYTE TECHNOLOGY BENEFITS

The key to the development of **NANOMYTE** paints and coatings has been our ability to understand corrosion mechanisms and characterize bulk and surface metal properties at the nanometer scale. By controlling the behavior of ions and molecules, the coatings slow down or stop the electrochemical reactions that adversely alter the appearance of metals or compromise structural integrity due to corrosion.

The chemistry of our formulations and the structure of our coatings enable the same active corrosion protection enabled by chromate. The result is measured in terms of laboratory and field performance, ensuring corrosion protection that meets or exceeds industry or military standards.

- WIDE USAGE Compatibility with most structural metals
- HIGH PERFORMANCE Long lasting corrosion protection
- GREEN CHEMISTRY –
   Complies with environmental,
   health and safety standards
- SMART FUNCTIONALITY System capable of repairing itself when damaged
- COST SAVINGS Less maintenance, materials and labor
- IMPROVED PRODUCTIVITY May require less physical preparation of the metal surface





# NANOMYTE<sup>®</sup> Anticorrosion Paints & Coatings



| Product       | Substrate                                  | Matrix       | Features  | Benefits  |
|---------------|--|--------------|---|---|
| PRETREATMENTS |  |              |   |   |
| PT-10         | Aluminum<br>Steel                          | Waterborne   | <ul><li>Improved corrosion resistance</li><li>Thermal or ambient cure</li></ul>                             | Longer part life  |
| PT-20         | Steel                                      | Waterborne   | <ul> <li>Less surface preparation &amp; grit<br/>blasting required prior to painting</li> </ul>             | Lower maintenance costs   |
| PT-30         | Copper                                     | Waterborne   | <ul><li>Improved corrosion resistance</li><li>Ambient cure</li></ul>  | Longer part life  |
| PT-40         | Magnesium                                  | Waterborne   | Improved primer adhesion  | More durable coatings   |
| PT-60         | Magnesium                                  | Waterborne   | <ul> <li>Self-healing combined with<br/>improved primer adhesion</li> </ul>                                 | Active corrosion protection   |
| PT-100        | Zinc-plated &<br>Galvanized<br>Steel       | Waterborne   | Improves adhesion in conjunction<br>with TC-5001  | Minimizes white and red rust<br>formation   |
| PRIMERS       |  |              |   |   |
| PM-101        | Steel                                      | Solventborne | <ul><li>Superior corrosion resistance</li><li>Excellent adhesion</li></ul>                                  | <ul><li>Avoids blistering</li><li>High elasticity</li></ul>   |
| PM-102        | Steel                                      | Solventborne | <ul> <li>Applicable up to 200µm in a single<br/>coat</li> </ul>   | <ul><li>Good barrier protection</li><li>Bridges large cracks</li></ul>  |
| TOPCOATS      |  |              |   |   |
| TC-500        | Steel<br>Aluminum                          | Solventborne | Superhydrophobic coating  | Seals surface and repels water  |
| TC-800        | Steel<br>Aluminum<br>Magnesium<br>Titanium | Waterborne   | <ul><li>Clear or colored coating</li><li>Gloss or matte finish</li></ul>                                    | Single coat corrosion protection  |
| TC-1001       | Steel<br>Aluminum                          | Solventborne | Self-healing clear coat   | Easy scratch repair   |
| TC-2001       | Steel                                      | Solventborne | Acid resistant coating  | Longer part life  |
| TC-3001       | Steel<br>Aluminum                          | Solventborne | <ul> <li>Penetrating formula encapsulates<br/>metal</li> <li>Applied directly to coating surface</li> </ul> | <ul> <li>No grit blasting required to<br/>remove rust</li> <li>Lasts 10-15 years in severe &amp;<br/>unwashed environments</li> </ul> |
| TC-4001       | Steel<br>Aluminum                          | Solventborne | <ul> <li>Thin, hard barrier coating</li> <li>Bonds to bare, pretreated or painted metal surfaces</li> </ul> | <ul><li>Superior corrosion protection</li><li>Easy to apply</li><li>High coverage</li></ul>   |
| TC-5001       | Zinc-plated &<br>Galvanized<br>Steel       | Solventborne | <ul> <li>Thin, hard barrier coating</li> <li>Bonds to zinc or pretreated<br/>surfaces (PT-100)</li> </ul>   | <ul><li>Excellent cyclic performance</li><li>Easy to apply</li><li>High coverage</li></ul>  |

400 Apgar Drive, Unit E | Somerset, NJ 08873 | P: 732-868-3141 | sales@neicorporation.com

## www.neicorporation.com

