

Rare-Earth Magnet Coatings

Engineered Solutions - Customized for Your Application



Everlube® Coatings for Rare-Earth Magnets

- Everlube Products has produced world-class coatings for Rare-Earth magnets since 1981, including Ever-Slik® 1221 and Everlube® 6155. Both products are functional at 8 microns dry thickness.
- Our easy-to-use website at EverlubeProducts.com will help you find solutions for your coating needs, download technical data, research qualified products, and get fast technical support.
- Everlube Products manufactures more than 1000 engineered coatings in an ISO 9001 and AS 9100D certified research, development, and production facility in Peachtree City, Georgia. (This facility is conveniently located near Atlanta, Georgia.)

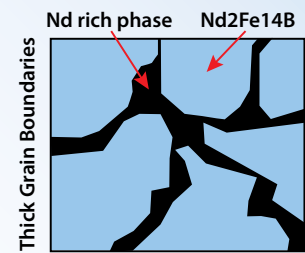
Why Choose Everlube® Coatings?

- Provides superior resistance to oxidative corrosion, abrasion and wear, and chemicals.
- Functions in a wide variety of extreme environments from -300°F to 400°F.
- Can be sprayed or dipped, air or oven cured, and are reducible with common solvents.
- Colors and glosses from clear, to silver, to black, or special order your own custom color.

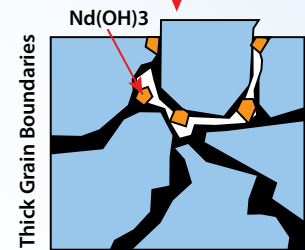
Coating	Attributes	Features
Everlube® 6155	<ul style="list-style-type: none"> • Apply at 8 to 25 microns • Operates at -300°F to 400°F • Cures in 60 minutes at 375°F • >500 hours ASTM B-117 Salt Spray 	Unique resin blend offers superior overall properties.
Ever-Slik® 1201	<ul style="list-style-type: none"> • Apply at 7 to 38 microns • Operates at -100°F to 400°F • Cures in 60 minutes at 375°F • >2500 hours ASTM B-117 Salt Spray 	Highest level of corrosion and chemical resistance.
Ever-Slik® 1221	<ul style="list-style-type: none"> • Apply at 8 to 20 microns • Operates at -100°F to 300°F • Cures in 60 minutes at 300°F • >400 hours ASTM B-117 Salt Spray 	Low dry film thickness and cure temp. Good adhesive bonding when glued.
Ever-Slik® 1222	<ul style="list-style-type: none"> • Apply at 12 to 25 microns • Operates at -100°F to 300°F • Cures in 60 minutes at 300°F • >400 hours ASTM B-117 Salt Spray 	Non-yellowing coating available in clear and many light colors.
Ever-Slik® 1260	<ul style="list-style-type: none"> • Apply at 8 to 20 microns • Operates at -100°F to 250°F • Cures in 24 hours at 77°F ±10°F • >500 hours ASTM B-117 Salt Spray 	Air-curing system for temperature sensitive substrates.

Corrosion Resistance and Wear Protection

- Rare-Earth magnets are the high-tech, permanent magnet of choice due to their high strength versus low size/weight.
- Neodymium rare-earth magnets are in widespread use in products including:
 - * Cordless rechargeable hand tools
 - * Computer hard disk drives
 - * Drive motors for electric vehicles
 - * Cell phone speakers and head phones
- **Sintered Neodymium Iron Boron magnets are brittle and can corrode easily along grain boundaries. They need a protective coating to prevent chipping and spalling.**



Exposure to humidity or salt spray



The corrosion mechanism for NdFeB magnets shows that when exposed to water vapor, the Neodymium rich layers at the grain boundaries react to form Neodymium Hydroxide. The effect of this conversion from Nd to Nd(OH)₃ is a large volume increase along the grain boundaries, leading to cracking and degradation of magnet properties.

Everlube Products

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Everlube Products is a division of Curtiss-Wright Surface Technologies. For more information, visit www.cwst.com.