



# Golden Shellback™



## Product Information

### Introduction

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**Golden Shellback™** is a unique coating process that protects critical operational equipment against damage and loss of function caused by exposure to weather and moisture. It is ideal for application in the electronics industry.

**Golden Shellback™** coating produces a vacuum deposited film that is nonflammable, has low toxicity and has the ability to splash-proof electronic devices and other surfaces. It contains no volatile organic combustibles (VOCs). The clear, nearly non-detectable, uniform film is insoluble in solvents. When applied to clean, moisture free surfaces, such as plastic, copper, aluminum, metal, ceramic, steel, tin or glass, the coating is transparent with excellent weather proofing and anti-corrosion properties.

### Performance

The following chart identifies the expected performance of **Golden Shellback™ coating**. Since **Golden Shellback™** is currently in development, this chart is not intended for specifications purposes but for expected performance only.

Typical Properties	Golden Shellback™ Splash-Proof Coating
Appearance	Clear, colorless to light gray coating
Flash point	None
Thermal Stability of Dry Film	Resistant to solvents to 175 C
Surface Energy of Dry Film	20-30 dynes/cm
Dielectric Constant @ 30% RH, 25°C@1 KHz	3.1
Coating Thickness	1 micron (or thicker)
Dielectric Strength	5.6 kV/25.4 microns
Dissipation Factor@30% RH, 25°C 1 kHz	0.019

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Golden Shellback™ Northeast Maritime Institute, Inc., U.S. Patent Pending

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Refractive Index	1.64
Water Absorption (% after 24 hours)	Less than 0.1
Rockwell Hardness	R80
Coefficient of Friction	.29 Static and Dynamic
Melting point	290°C
Thermal Conductivity at 25C (10 <sup>-4</sup> cal/(cm*s*C)	2.3

## Product Safety and Handling

The product materials contained in **Golden Shellback™ coating** are not considered hazardous. Items coated with **Golden Shellback™** are safe to handle immediately after application.

## Golden Shellback™ Advantages

**Golden Shellback™** has an excellent ability to repel oils, synthetic fluids, hazardous materials, dust, dirt and water based solutions. Low surface tension values, such as water and oils, will bead and drain freely from coated surfaces. The process produces a uniform, continuous, near hermetic coating that resists rain and humidity. Electronics casually exposed to water continue to work even after exposure.

The coating is readily applied and not generally considered to be removable. Repairs are made using abrasive methods.

## Contact Information

For more information or to discuss your specific interest, please contact:

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