

ACU® High-Performance Protective Coatings

Optimize fastener performance in electronics

The ACU family of modified acrylic, multilayer, dry-to-the touch coatings is engineered to provide optimal performance in a wide variety of applications. Each durable, corrosion-resistant variation is designed to meet specific needs. These environmentally-friendly color finishes are free of chromates and silicates. They are also free from any process that might induce hydrogen embrittlement. This low friction finish allows consistent torque-tension relationships without the use of post-coating lubricants.

- Maximizes fastener performance
- RoHS compliant (chrome-free)
- Available in semi-gloss, Pantone® colors with a smooth, satin finish
- Low friction – eliminates the need for post-coating lubricants
- No introduced hydrogen – will not cause brittle failures like those caused by electroplating
- Durable tough finish – doesn't come off during handling or repeated installations
- Eliminates the plating process, resulting in a more eco-friendly product than those with plated zinc or other finishes



Types of ACU® High-Performance Coatings for Electronic Applications

- **ACU Coat Standard** is a modified acrylic, multi-layer coating that delivers optimum performance in lubricity, corrosion resistance and color consistency.
- **ACU Conductive Coating** has electro-conductive qualities equal to or greater than zinc clear trivalent chromate. Since it is not electroplated, it won't cause brittle failures.

ACU® Coat Standard

Applications: All fasteners requiring high corrosion-resistance and a durable, tough, dry-to-the-touch finish with low friction

Features & Performance Specs:

- Product diameter range: M1.2 and larger
- Salt spray resistance: 96 hours min.
- Available in a wide range of Pantone® colors
- Semi-gloss color tones
- Uniform thickness
- No introduced hydrogen – will not cause brittle failures from electroplating
- RoHS compliant (chrome-free)
- Compatible with internal recesses

Benefits:

- Good paint adhesion characteristics (heat cure method)
- Durable tough finish (doesn't come off during handling or repeated installations)
- Low friction
- Compatible with plastics
- Clean and dry – no oily residue

Ideal for fasteners used in:

- PDAs
- Cell phones
- Cameras
- MP3 players
- Digital media

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ACU® Conductive Coating

Application: All fasteners requiring a conductive finish (non-electroplated) to create a ground between components

Features & Performance Specs:

- Product diameter range: M1.2 and larger
- Available Pantone® colors: Silver
- Salt spray resistance: 96 hours min.
- Semi-gloss color tone
- Uniform thickness
- No introduced hydrogen – will not cause brittle failures from electroplating
- RoHS compliant (chrome-free)
- Compatible with internal recesses
- Compatible with plastics

Benefits:

- Zinc and clear trivalent chromate appearance
- Equal or greater electro-conductive qualities than zinc clear trivalent chromate
- Durable tough finish – doesn't come off during handling or repeated installations
- Low friction
- Clean and dry – no oily residue

Ideal for fasteners used in:

- PDAs
- MP3 players
- Cameras
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Other Gemstone™ High-Performance Products available from STANLEY Engineered Fastening

MICROtech® Cleaning Process

An electrochemical cleaning process that meets Class 100 Clean Room specifications that minimize contamination.

- Removes damaging surface imperfections
- Reduces variations in torque/tension that can result from contaminants
- Eliminates your in-house cleaning operations



Optia® Coating

A thin-film, lubricious polymer covering originally developed for the electronics industry.

- Reduces friction between the fastener's surface and the surface of the mating component
- Offers low particle generation and non-galling properties in fasteners as small as M0.8 in diameter
- Decreased k factor provides higher clamp force with less seating torque
- Compatible with internal recesses
- Complies with hazardous substances restrictions RoHS and WEEE
- Meets or exceeds Class 100 Clean Room requirements

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