

# Technical Data Sheet



## Metal Blades with Electrolizing®

### Product Description

The Electrolizing process uniformly bonds a smooth, very dense, pure chromium, non-magnetic, extremely hard proprietary alloy onto our stainless steel base premium metal blades. This alloy provides an unusual combination of bearing properties, remarkable wear resistance, extremely low coefficient of friction and corrosion protection. The smooth sliding properties enhances paste rolling and release that is essential in SMT PCB printing applications. Electrolizing optimizes print performance and maximizes blade life!

### Features

Coating Thickness: .00001"  
Hardness: Rc 70/72  
Corrosion Protection: excellent  
Wear Resistance: no chipping, flaking or peeling  
Lubricity: excellent  
Adhesion: absolute  
Conductive: yes  
Electrostatic build-up/discharge: eliminates  
Appearance: smooth satin-gray  
No Undercoating: no nickel or cooper

### Hardness

Electrolizing provides the metal with a surface hardness of Rc 70/72 Rockwell. While the plating is extremely hard, it is also quite ductile. The density of the plating provides a surface free of irregularities. The combination of hardness and density results in reduced wear rates and a reduced coefficient of friction. There is no undercoating used; no cooper or nickel.

### Adhesion

Adhesion is the most important feature of the Electrolizing technology. Without adhesion, surface treatments offer little benefit. The Electrolizing plating must meet standard repeated bend testing to 180°F / 82°C without showing signs of chipping, spalling or separation. Adhesion test results enables this technology to meet the standard ASTM-B-489-85.

### Lubricity

The plating is excellent for providing a dry lubricant surface. With unplated steel against itself, the resultant frictional values range to about .20 or greater. Electrolizing provides the user with .09 to .12 values, or approximately 50% improvement. Lubricated conditions result in lower values and improves stencil life.

### Corrosion Protection

The plating has been subjected to corrosion testing using ASTM-B-117 salt spray procedures. The results meet or exceed the criteria stated in the specifications QQ-C-320, AMS 2406 and AMS 2438. In addition, the plating has been evaluated in humidity tests, salt water, deionized water, bleach and various commercial reagents, acids, alkalines and salts.

### Precision

Electrolizing was developed and designed to be a precise, thin deposition. The procedures, controls and techniques for applying Electrolizing assure that highly precise tolerances .00001" is maintained.

### Aesthetics

The smooth plated surface is satin-gray in color, continuous, fine grained, adherent, uniform in thickness and appearance and is free of blisters, pits, nodules, porosity and edge build-up.

### Conductivity

Unlike anodize and hard-coat, Electrolizing is a conductive plating. Combined with increased wear resistance, the conductivity property eliminates electrostatic build-up and discharge.

### Ordering Information

Standard ordering information can be found on our website or by contacting the factory.

### Availability

Products are available through global sales and a nationwide network of distributors.

### Environmental Policy

As a leading manufacturer and supplier of SMT production supplies; JNJ is committed to providing high quality products and services in a manner that does not impact upon, but enhances the environment.

The data supplied in this document is for guidance only and is not intended to serve as a specification or recommendation. JNJ Industries does not guarantee the accuracy of the information and does not assume liability in connection with any damages that may be incurred while using the product and reserves the right to change the above data without notice.

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