

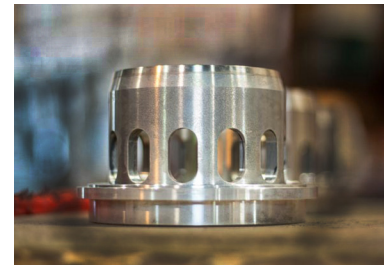
# Chrome Plating Comparison

## Properties & Benefits of Electro-Coatings' Chrome Plating Processes

Commercial equipment and components face multiple threats simultaneously. In response, we've developed coatings that offer multiple benefits.

Our success of chromium plating in industrial applications is attributed to its unique combination of multiple properties and benefits not possessed by any other one material available.

Electro-Coatings has decades of experience producing coatings to satisfy a wide range of needs. For reduced friction, improved solderability, and increased resistance to abrasion and corrosion, our products are leaders in the Commercial Plating Industry.



	<b>Electralloy™</b>	<b>Industrial Hard Chrome</b>	<b>Nye-Croloy™</b>	<b>Sul-Croloy™</b>
Materials	Chrome	Chrome	Two layer process: Electroless Nickel + Hard Chrome	Two layer process: Sulfamate Nickel (99.9% pure nickel) + Hard Chrome
Chrome Layer (in depth)	0.000025" to 0.0005"	0.001" to 0.010" or more	application specific	application specific
Dimensional Tolerances	±10%	application specific	application specific	application specific
Micro-cracking	Few	Some, natural microscopic crack pattern	Nickel provides a corrosion resistant barrier, eliminating a corrosive attack on the substrate.	Nickel provides a corrosion resistant barrier, eliminating a corrosive attack on the substrate.
Friction Coefficient	Low, 0.12 to 0.13 vs. lubricated steel at 0.20	Low	Low	Low
Surface Hardness	70 Rockwell C	66 to 70 Rockwell C	66 to 70 Rockwell C	66 to 70 Rockwell C
Heat Application	Low, won't distort components	Low, won't distort components	Low, won't distort components	Low, won't distort components
Performs in Temperatures	-425° to +1150° F	Suitable in many cryogenic, liquid nitrogen, or oxygen applications >1000° F	Suitable in many cryogenic, liquid nitrogen, or oxygen applications >1000° F	Suitable in many cryogenic, liquid nitrogen, or oxygen applications >1000° F

### Applications & Benefits

Abrasion Resistant	•	•	•	•
Corrosion Resistant	•		••	••
Extends equip. in-service life, reducing costly downtime	•	•	•	•
Friction Resistant	•	•	•	•
Lubricity	•	••	•	•
Prevents seizing & galling	•	•	•	•
Restored dimensions of oversized parts	•	•		
Uniform Thickness	•	application specific	•	•
Wear Resistant	••	••	••	••

Industrial hard chrome is differentiated from decorative applications, and is primarily applied to a substrate material for the purposes and benefits listed above for commercial equipment and components.



*The data and information presented are based on our experience to date. The material is intended as a guide for use at your discretion.*

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Electro-Coatings is a subsidiary of ACME Holdings, Inc.

ACME Holdings invests in small industrial businesses, and takes an active management role with its subsidiary-partners to achieve Operational Excellence towards Acme's 70 year tested Best Practices model. ACME provides financial systems and support, and administrative infrastructure empowering its partners to focus on their customers.