

## Hard Chrome Plating on Aluminum:



*Aluminum housing plated 0.002 thick after finishing*

Aluminum offers engineers weight saving advantages in their product design; however, aluminum has poor wear and friction properties.

In addition, the surface oxide layer of this chemically active metal, which gives it corrosion resistance, makes it a very difficult metal to plate. This inherent problem is exacerbated by the vast number of alloys offered commercially.

US Chrome has developed specific proprietary pre-treatment cycles to remove the oxide layer from any aluminum alloy resulting in maximum attainable bond strengths of our coating.

### Features & Benefits:

- 1. Freedom of Design**  
New applications are possible using the light weight of aluminum combined with the durability of hard chrome.
- 2. Increase in Wear Life**  
The typical hardness of chromium is between 65-70 HRc and provides rugged durability against seizure, galling, and wear of mating parts.
- 3. Low Coefficient of Friction/Lubricity**  
Aluminum which easily galls and seizes can now benefit from chromium's low coefficient of sliding friction.
- 4. Excellent Adhesion**  
USC offers superior bond strength of chromium on all aluminum alloys.

### Properties:

[See Industrial Hard Chrome Plating page](#)

### Design Recommendations:

[See Design Recommendation page](#)

### Typical Applications:

Various applications include medical, aerospace, engine components.

### For more information contact us:

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