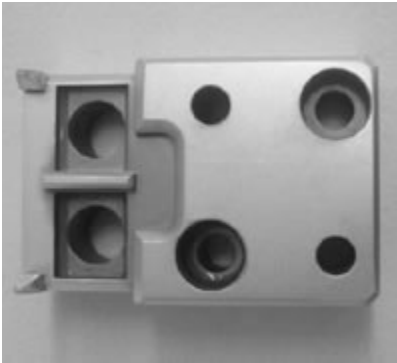




Performance Coatings since 1940

## Thin Dense Chrome:

### Coating Description



*Die with 0.0002 TDC deposit (notice intricate masking of some areas)*

Thin Dense Chrome is electroplated chromium with a thickness generally 0.0001" to 0.0002" where the chromium structure is denser. This dense condition is created by using specific bath chemistry combined with tailored application techniques. These carefully monitored parameters produce a uniform coating thickness while maintaining tight tolerances.

### Features & Benefits

Increased Wear Life – Typical hardness between 65-70 HRc

Good Heat Resistance

Maintain original tolerances of component with no finishing operation after plating

Excellent corrosion protection – dependent on such factors as surface finish, porosity, base metal, corrosive media, etc.

### Design Recommendations

[See Design Recommendation page](#)

### Typical Applications

Dies, aircraft, medical parts.

## Black Chrome:



*Housing is plated with low reflective black chromium.*

### Coating Description

Black chrome is an electrolytic plating process which produces a chromium oxide film utilized for both functional and decorative purposes. Its appearance depends on the base metal and the surface condition prior to plating. Although not a thick deposit the resulting color ranges from a semi-shiny black color on nickel to a flat black appearance on steel or zinc alloys.

### Features & Benefits

Ideal for high temperature applications

Low Reflectivity ( 93%)

Attractive Heat Sink

### Design Recommendations

[See Design Recommendation page](#)

### Typical Applications

Solar panels, lens holders in optical systems.



Performance Coatings since 1940

**Crack-free Chromium:**



*Bore/rifling of gun barrels electropolished and chrome plated 0.0004 thick chromium.*

**Coating Description**

Crackfree chrome is an electroplated version of Industrial Hard Chromium but as the name implies, does not exhibit the crack pattern inherent in IHC.

**Features & Benefits**

- Excellent Wear resistance – similar to IHC although slightly softer at 65 Rc
- Superior corrosion protection – lack of cracks in the deposit is advantageous
- Greater thickness (up to 0.0005) achievable compared to Thin Dense Chrome

**Design Recommendations**

[See Design Recommendation page](#)

**Typical Applications**

Commercial hydraulics, ID parts subjected to wear and corrosive gases, etc.

**Properties:**

[See Industrial Hard Chrome plating page](#)

**Design Recommendations:**

[See Design Recommendation page](#)

**Typical Applications:**

Applications include housings, shafts, and other components for the aerospace and oil/gas industries.

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