

# CONSOL NOVA CHROME

**Bright ♦ Fast ♦ No-Etch Hard Chrome Plating**

## **Outperforms Conventional Chrome Systems**

- ✓ **Harder & More Durable**  
*Produces deposits up to 1000+ Vickers hardness.*
- ✓ **No-Etch Process**  
*Safe on all unmasked surfaces, eliminating unwanted base metal attack.*
- ✓ **Improved Corrosion Resistance**  
*Microcracked deposits with greater than 1000 cracks per inch, enhances corrosion resistance and coating durability.*
- ✓ **Operates at High Current Densities**  
*Enables rapid deposition without burning, ideal for high-throughput production environments.*
- ✓ **High Cathode Efficiency (20–26%)**  
*Delivers higher deposition rates with lower power consumption, enabling faster and more energy-efficient plating.*

**Modern Hard Chrome for a New Era of Efficiency**



**Consolidated  
Metal Finishing  
Private Limited**

104 (NP), Industrial Estate, Ambattur, Chennai - 600 098. T.N. India.

Phone: +91 44 2625 3976 / +91 86 8087 0614

Email: [info@cmf-india.com](mailto:info@cmf-india.com) | Web: [www.cmf-india.com](http://www.cmf-india.com)

## FEATURES AND BENEFITS

### **CONSOL NOVA-CHROME**

*Bright, Fast, No-etch Hard Chrome System.*

#### **CONSOL NOVA-CHROME-Hard Chrome Process- better than conventional Chrome systems**

- High cathode efficiency 20-26 %. Saves Electricity- Plates faster.
- Saves time by 50 ~ 60 % over conventional Chrome.
- Harder Chrome deposits up to 1000 – 1100 Vickers.
- Non-Fluoride system prevents etching of unmasked work-piece surfaces.
- Low make-up strength low drag-out loss. Easy & economical to operate & maintain.
- Micro Cracked Chrome deposit provides improved corrosion resistance.
- Bright, smooth deposits from the tank, eliminate need to polish.
- Excellent deposit distribution.

#### ***SOLUTION COMPOSITION, OPERATING CONDITIONS & EQUIPMENT***

	Range / Optimum
<b>CONSOL NOVA-CHROME-MU Salt</b>	Optimum. 250 g/l. Range. 230 ~ 360 g/l
<b>CONSOL NOVA-CHROME-Additive 1</b>	15 ml / lit
<b>CONSOL NOVA-CHROME-Additive 2</b>	20 ml / lit
<b>CONSOL FUME FREE</b>	2 – 3 ml / lit
Density	Optimum. 25° Be. Range. 22 – 28°Be
Sulfate Ratio to Chrome.	1.1 - 1.3 parts per 100 parts Chromic acid.
Temperature	Optimum. 55°C. Range. 50-60°C
Cathode Current Density	20 ~ 70 A/dm <sup>2</sup>
Anode Current Density	10 ~ 40 A/dm <sup>2</sup>
Voltage	Optimum. 12 Volts. Range. 10 ~ 15 Volts. Ripple > 5%
Cathode Efficiency	20 – 26 %
Plating Rate	0.5 μ in 1 min @ 35 A/dm <sup>2</sup>
Plating Tanks	MS tanks lined with PVC, FRP, PVC or moulded PVDF / PVC.
Coils / Heaters	Titanium (thermostatically controlled)**
Anodes	7% Tin/Lead alloy. Round cross-section is preferred
Water	Chloride free Deionised water for drag-out and rinses.

\* Baths that do not use Fume Suppressant are subject to violation of air pollution norms.

^^ Higher Current Density = Higher Cathode Efficiency, subject to, Solution concentration, temperature and sulphate content.

\*\* All Tanks require cooling and heating arrangement to maintain temperature.

Note: Lead lined tanks are not to be used.

Attention: This sheet is only meant to provide Features and Benefits of the process mentioned. For detailed Usage, Please refer the product Technical Data Sheet. For Safety, handling and Chemical information please refer the Safety Data Sheet. These can be provided through a *Consolidated Metal Finishing Pvt. Ltd.* representatives or requesting us for the same by email.