

## Nickel Processes

### Semi-Bright Nickel Process

- Produces uniform, semi-bright nickel deposits
- Excellent metal distribution and throwing power
- Potential is freely adjustable from 100 mV to 200 mV
- Optimum corrosion resistance properties in conjunction with bright nickel and micro-porous nickel plating

▶ SurTec 853

### Bright Nickel Process

- Produces high-bright nickel deposits with high ductility
- Excellent chromium plateability due to maximum activity of nickel deposits
- No generation of harmful or detrimental decomposition products meeting the highest demands on the environment

▶ SurTec 858

### Micro-Porous Nickel Plating

- Produces high-performance nickel deposits with high ductility and uniform pore distribution
- Excellent chromium plateability due to maximum activity of nickel deposits
- Optimum corrosion resistance with SurTec bright nickel and semi-bright nickel processes

▶ SurTec 849

## Trivalent Chromium Processes

### Bright Trivalent Chromium Plating for highest demands on corrosion resistance and a light colour

- Excellent corrosion resistance properties during CASS and calcium chloride testing
- Possible layer thicknesses of up to 0.5 µm
- Produces a reproducible, uniform and consistent light colour

▶ SurTec 881

### Bright Trivalent Chromium Plating for dark layers

- Produces a reproducible, uniform and consistently dark and stable colour
- High deposition rates demand minimum process cycles
- Meets requirements of the Asian automotive industry
- Different dark tones are available

▶ SurTec 882, SurTec 885, SurTec 886, SurTec 887

### Bright Trivalent Chromium Plating for white layers

- Produces decorative and appealing white layers identical to hexavalent chromium
- Special TCP anodes guarantee stable, uniform and short process cycles due to high deposition rates
- Achieves a reproducible, uniform and consistently white colour

▶ SurTec 883 XT

Protection upgraded

**Sur  
Tec**



**Chemical Specialities for  
Decorative Plating**



## Immersion Cleaning with or without Ultrasound

- Thoroughly removes polish, oil and grease
  - An emulsifying and demulsifying cleaner system especially adjusted to the process
  - Modular, liquid systems provide long service life and are easy to handle
- **Powder:** SurTec 151, SurTec 154, SurTec 188
- Liquid Builder:** SurTec 163, SurTec 192, SurTec 198, SurTec 199
- Surfactants:** SurTec 089, SurTec 415, SurTec 092, SurTec 095 E

## Electrolytic Cleaning

- Well-balanced substances provide optimum precision cleaning prior to subsequent plating
  - Wide field of application by powder or liquid products and alkaline additives
  - Highly economical by application of modular systems in soak or electrolytic cleaners
- **Powder:** SurTec 171, SurTec 177, SurTec 179
- Liquid Builder:** SurTec 192, SurTec 198, SurTec 199
- Alkaline Additive:** SurTec 419

## Acid Cleaning and Activating

- Gentle removal of oxides, scale and pigment
  - Substrate protection by inhibitors
  - Excellent activation of even complicated metal surfaces prior to electroplating
- **Acid Cleaner:** SurTec 420, SurTec 423 R, SurTec 088
- Activator:** SurTec 481, SurTec 860 A

## Dye-based Acid Copper Plating

- For particularly brilliant copper depositions with excellent levelling and extreme throwing power
  - 2-component system with very efficient additives and easy handling
  - Produces ductile and low-stress copper layers, particularly suitable for copper plating of ABS blends
  - Low-maintenance process due to strongly reduced formation of decomposition products in the additive system
  - Suitable for steel, zinc die cast and plastics
- **SurTec 866**

## Alkaline Cyanide-Free Electrolyte

- For barrel, rack and continuous processes
  - A perfect base coat for the subsequent acid copper plating
- **SurTec 864**



## Application Areas of SurTec Products:



Industrial Parts Cleaning



Metal Pre-treatment



Functional Electroplating



Decorative Electroplating



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