



Future Coat Technology

BRIGHT CHROME PLATING

Properties

The bright chrome plating solution FCT BRIGHT CHROME is a mixed acid-chrome electrolyte. It is applied for deposition of decorative bright chrome layers. The special characteristic of this electrolyte is excellent covering power which can be obtained by operation within a wide range of current density.

Make up

Make-up quantity(100l)	30.00kg Make-up salt FCT BRIGHT CHROME,0.12kg sulphuric acid,chem.pure conc. d=1.84
Low concentrated make-up	19.00 kg make-up salt FCT BRIGHT CHROME, 0.08 kg sulphuric acid, chem. pure conc., d=1.84

Operation conditions

Density (g/cm ³)	Standard make up	Be (15 ⁰ C) =25 ⁰ d (20 ⁰ C) =1.21g/cm ³
	Low concentrated make-up	Be (15 ⁰ c) =17 ⁰ d (20 ⁰ C)=1.135
Temperature		35-50 ⁰ C
Current density		10-25A/dm ²
Voltage		The voltage is mainly depending up on the plant –and operating conditions. Average Voltage: 6-12V
Anode current density		15-25 A/dm ²

Rectifiers	Usually 8V units, for higher outputs usually 12 V
Units	The rectifiers must provide a residual ripple of less than 5% Within the whole current range
Rate of deposition	Rate of deposition (standard make-up) at between 40° and 50°c and a cathodic current densities of: 10A/dm ² =approx.0.08µm/min 15A/dm ² =approx.0.14µm/min 20A/dm ² =approx.0.22µm/min 25A/dm ² =approx.0.29µm/min

Maintenance:

Nominal values	Minimum and maximum values
Standard make-up	280-340g/l CrO ₃
Low concentrated make-up	170-210g/l CrO ₃
Sulphuric acid	0.4-.06% (In relation to the content of chromic acid) The widest range of operation is achieved at a concentration of 320-340g/lCrO ₃

Reinforcement

The electrolyte is reinforced by adding replenishing salt FCT BRIGHT CHROME. This salt contains all components for the maintenance of the nominal values. When the density for 1° Be an addition of about 1.5kg replenishing salt FCT BRIGHT CHROME per 100 l solution is required.

Under normal working conditions and if strictly adhering to our recommendations corrections are required in exceptional cases only and will be prescribed by us after analysis of the solution.

Effluent treatment

The electrolyte contains hexavalent chromium compounds and usually heavy metal contaminations, such as iron and copper. Concentrates and rinse water have to be disposed of in compliance with the legal regulations.

