

Table 6.4.1 A: Chrome Plating Operating Conditions
(California Department of Toxic Substances Control 1993)

| Operating Factor | Single Cell Trivalent | Double Cell Trivalent | Hexavalent Chromium |
|--|-----------------------|-----------------------|---------------------|
| pH | 2.3 – 3.5 | 3.3 – 3.9 | < 1 |
| Temperature, °F | 70 – 120 | 70 – 130 | 110 - 115 |
| Cathode Current density, A/ft ² | 40 – 125 | 40 – 125 | 175 - 300 |
| Agitation | Mild Air | Mild Air | Optional |
| Rectifier Voltage, V | 4 – 15 | 4 – 15 | 4 - 12 |
| Anode Material | Carbon | Lead – 7% zinc | Lead – 7% tin |
| Chromium Concentration, g/L | 4 – 20 | 5 – 10 | 150 - 300 |
| Max. Thickness at Room Temperature, mil | 0.01 – 0.03 | N/A | 5 or more |
| Max. Thickness at High Temperature, mil | 1 or more | About 0.01 | N/A |
| Plating Rate at Room Temperature, mil/min | 0.005 – 0.007 | N/A | 0.005 – 0.007 |
| Plating Rate at High Temperature, mil/min | 0.007 – 0.010 | 0.004 or less | N/A |