

Technology for Chrome Plating

Chromic Acid Supply Is Tight

For those of us in the plating industry it comes as no surprise that the price for chromic acid has gone up as the supply has tightened. Tight supplies lead to slower delivery times and that puts pressure on us all. It's all about the simple economics of supply and demand.

The facts:

Chrome ore is mined from the earth much like iron ore is. Then it's transported to a refinery where the ore (dirt & rock) is converted into chemicals. A lot of energy is needed to convert ore into usable chemicals. The mines increased their prices for the ore, fuel, and electricity needed for transportation along with refining has increased as well. There have been chromic acid shortages and fluctuating prices in the past and we expect this trend to continue. Chrome production plants are operating at capacity. The increased demand for chrome from China and South America has stressed the supply chain. These facts aren't going to change any time soon.

Given today's concept of Just-in-Time delivery, it's hard to believe that only a few years ago many leading chrome platers would buy and store an entire year's supply of chromic acid at one time. This provided them with several benefits:

- Because they bought in larger quantities they could buy at a lower price.
- By anticipating prices they could time their purchase with the market fluctuations and buy when the price was right.
- And perhaps most important, they had their supplies on hand when they needed them.

These Platers realized that chromic acid was critical to their operation and without that one commodity they would be out of business.

We do not believe that the price of chrome will drop in the next few years. For this reason, we suggest that you take a serious look at your chrome needs for the balance of 2008 & 2009 and take steps to insure your supply.

Topics

Chromic Acid Supply

New Trends

Staying Competitive

Insider Tips

Plating Resources, Inc.

2845 W. King St., Unit 108 ♦ Cocoa, Florida 32926, USA

Phone: (321) 632-2435 ♦ Fax: (321) 632-8122 ♦ E-Mail: sales@plating.com

www.plating.com ♦ www.platingsystems.info ♦ www.microtuff.com

New Trends and Staying Competitive

New Trends

We have noticed two new trends that could positively affect the hard chrome plating industry.

1) Captive Shops

Some shops of the captive OEM's either already have or are now in the process of eliminating their in-house chrome plating operations. Granted, we all know that chrome is pretty easy to handle properly, but these companies seem overly afraid of the liability associated with hazardous materials. They would rather job the work out than have to deal with an unknown risk. Many of these OEM's have closed their plating operation and sold their equipment. This presents an opportunity because this work tends to stay in our country and is sent out for plating to the job shops. These shops are not always local as many of the OEM's maintain a fleet of trucks and transportation is not an issue. The OEM's tend to provide continuous work and for the most part pay their bills on time.

2) Overseas Work

It's natural to bellyache about the production lost overseas because of cheaper labor. Here's a twist though. In some foreign countries the quality of hard chrome plating suffers greatly. We have seen an increase in the amount of chrome plating shipped to the USA because of this. Hopefully, this trend will intensify as they realize that cheap labor won't make up for technology and good old American know-how. Several overseas companies are now looking for high quality USA chrome platers to handle their needs.

Staying Competitive

Lately, some of you have seen a slow-down in business. This slowness is not across the board though; some hard chrome shops are in a growth mode staying busy with lots of work coming in the door each day and are able to command their prices. Others, however, are seeing considerable slowness and are having to compete on price alone.

So what distinguishes one from the other?

The answer is good business management. This is critical for both *survival and prosperity*. The customer expects high quality, reliability, timely delivery and fair prices. They don't necessarily want the cheapest price as they realize quality, reliability and on-time delivery are important ingredients for their success.

Operating a job shop today is different than it was in the glory days of the 60s-80s. To stay competitive means keeping on top of technology, knowing and expanding your market, determining your costs and improving your efficiency. *The secret today is to compete on quality and delivery, but not on price.*

We can help you with some of this. We can show you how to increase plating speeds by about 50% without the bad effects of fluorides. And, you can now replace old & tired solutions with a low concentration bath that saves chrome and has less misting. Finally, our customers receive free technical back-up and a web link to our site www.plating.com. Many of our hits are from companies looking for shops to plate their work. This could become a powerful marketing tool for your company.

Insider Tips

It's all about efficiency today, being able to deliver a better product faster than the next guy at a reasonable price. Increasing efficiency can take several forms, but the two most cost effective ones involve the plating bath which is the lifeblood of your business.

Plating Accelerator

An additive is now available that drastically improves the plating bath. This *increases the plating speed around 50%* and provides a deposit that's much smoother and brighter. We suspect the increase in smoothness also equates to less pitting. This additive also seems to help the bath tolerate impurities much better.

Nothing else changes, you still use the same chromic acid, anodes & equipment and there is no need to test the additive level. All that's involved is a one time 2.5 oz/gal. addition of a granular Booster Additive. This level is then maintained by adding a gallon of the maintenance liquid for each drum of chrome consumed.

This additive is non-fluoride and doesn't cause etching and it offers a *fast pay-back* based on the electrical savings and the additional amount of work plated each day.

Finally, companies that already use a high efficiency bath can now switch to regular chromic acid and *save about 50% on their chemical costs*.

Impurity Control

We all know high levels of trivalent, iron & copper severely limit plating speeds and lower deposit quality. In the rush of getting things done though, it's easy to forget just how important this is. Keeping impurities within their recommended limits allows for faster, more reliable plating with better results and lower costs.

Plating professionals know the Impurity Index Level should not exceed 7 which includes the percentage of trivalent and the grams per liter (g/l) of iron and copper in the bath. Some older baths can reach a level of 20 (or higher) and these shops suffer because of it. Their overhead is much higher, especially electrical costs, and their efficiency drops way off. These shops have trouble competing.

Fortunately, trivalent and chloride can easily be removed by dummying with CR-3 Reducer and small amounts of iron and copper can be chelated with Dura-76. In some cases porous pots used with CR-3 can help too. Forget about the use of ion exchange and membrane treatments ---these are too expensive.

Believe it or not, the "old school" decanting and re-making a portion of the bath ends up being the least costly and the easiest approach. It's pretty common for a shop operating a single 2,000 gallon tank to *save over \$100,000 a year* in extra costs just by controlling their impurity levels. **We can provide you with a spreadsheet showing exactly what your savings will be; the improvement in speed and quality will be icing on the cake.**

Welcome

Welcome to the first edition of Fantastic Finishes. This newsletter is designed to present issues that are important to your business. Fantastic Finishes is the only newsletter of its kind that's strictly devoted to the chrome plater.

Fantastic Finishes will be published three or four times a year and will include business topics and technical information that pertains to chrome plating. Our goal is to preserve and advance our important industry by helping shops better deal with issues critical to their well being.

Please let us know if there are any topics that you would like to see addressed in future editions and we will try to accommodate you. Also, please let us know if you wish to opt out of this newsletter or if there are others in your company that should also receive a copy. Thank you.

FANTASTIC FINISHES



Plating Resources, Inc
2845 W. King St., Unit 108
Cocoa, FL 32926