

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2001

DateRun: 08/14/2001

Experimenters: Jason Marshall

ClientType: General

ProjectNumber: Project #1

Substrates: Brass

PartType: Part

Contaminants: Paints

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: Further evaluation of most successful products from first trial

Experimental Procedure: The top six products from the previous trial used at the same concentrations and temperature. Parts were cleaned for 40 minutes followed by a tap water rinse at 120 F and dried with a heat gun at 500 F. Observations were made at the end of the trial.

Results: Two products, Inproclean 4000 T and Shopmaster RC removed all of the paint, but did not brighten the metal. Compliance was able to remove about two thirds of the paint and brightened the metal. The following table lists the observations made and the rankings for cleaning and brightening.

| Cleaner | Cleaning Ranking | Brightening Ranking | Overall Ranking | Bright Weight |
|----------------------|------------------|---------------------|-----------------|---------------|
| Inproclean 4000 T | 1 | 5 | 3 | 2.75 |
| Shopmaster RC | 1 | 5 | 3 | 2.75 |
| SC Supersolve | 2 | 3 | 2.5 | 2.00 |
| Bio T Max | 5 | 4 | 4.5 | 3.25 |
| Polyspray Jet 790 XS | 3 | 2 | 2.5 | 1.75 |
| Compliance | 4 | 1 | 2.5 | 1.50 |

The overall ranking results from the average of the cleaning and brightening. If cleaning is more important than brightening, the ranking from cleaning should be given more of an impact than the brightening ranking. To illustrate, the following table shows the results for a clean weighting and the same bright weighting.

| Cleaner | Bright Weight | Clean Weight |
|----------------------|---------------|--------------|
| Inproclean 4000 T | 2.75 | 1.75 |
| Shopmaster RC | 2.75 | 1.75 |
| SC Supersolve | 2.00 | 1.75 |
| Bio T Max | 3.25 | 3.50 |
| Polyspray Jet 790 XS | 1.75 | 2.00 |
| Compliance | 1.50 | 2.25 |

Summary:

| Substrates: | | Brass | | | | |
|-------------------------|------------------------------|--------|-------------|-------------------------------------|------------------|--|
| Contaminants: | | Paints | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| Oakite Products | Inproclean 4000 T | 100 | | <input checked="" type="checkbox"/> | no brightening | |
| Buckeye International | Shopmaster RC | 100 | | <input checked="" type="checkbox"/> | no brightening | |
| Gemtek Products | SC Supersolve Safety Solvent | 100 | | <input checked="" type="checkbox"/> | some brightening | |
| Bio Chem Systems | Bio T Max | 100 | | <input type="checkbox"/> | | |
| US Polychem Corporation | Polyspray Jet 790 XS | 5 | | <input type="checkbox"/> | some brightening | |

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|--------------------|------------|---|--|--------------------------|------------------|
| Brulin Corporation | Compliance | 5 | | <input type="checkbox"/> | some brightening |
|--------------------|------------|---|--|--------------------------|------------------|

Conclusion:

Even though two products were found that removed all of the paint from the brass parts, no brightening took place. An additional product was found to increase the brightness of the brass but did not remove all the paint. Perhaps a combination of the products may result in the desired cleaning and brightening.