

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2020

DateRun: 10/06/2020

Experimenters: Justin Kiander

ClientType: Aircraft Parts Manufacturer

ProjectNumber: Project #1

Substrates: Glass/Quartz

PartType: Coupon

Contaminants: Resins/Rosins

Cleaning Methods: Immersion/Soak

Analytical Methods: Gravimetric, Visual

Purpose: The purpose of this experiment was to repeat 30 minute heated immersion with a stir bar using Mirachem 500 as requested by the company.

Experimental Procedure: A solution of Mirachem 500 was prepared to a concentration of 25% and heated to 140°F. Two glass coupons were obtained and weighed. One coupon was then soiled with Rosin #2 while the other was soiled with protect-o-coat and dirty weights were recorded. Once the cleaning solution reached the proper temperature, the coupons were submerged into the beaker along with a stir bar for agitation for 30 minutes. Once 30 minutes had passed, coupons air dried for 24 hours, and a clean weight was then recorded. Effectiveness of the cleaner was then determined.

| Cleaner | Soil | Initial wt of cont | Final wt of Cont | %Cont Removed |
|--------------|----------------|--------------------|------------------|---------------|
| Mirachem 500 | Rosin #2 | 0.1247 | 0.1025 | 17.80 |
| | Protect-o-coat | 0.0029 | 0.0007 | 75.86 |

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|----------|----------------------|----------------------|---------------|--------------------|--------------------------|----------------------|
| Summary: | Substrates: | Glass/Quartz | | | | |
| | Contaminants: | Resins/Rosins | | | | |
| | Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| | Mirachem Corporation | Mirachem 500 | 25% | 17.80 | <input type="checkbox"/> | For Rosin #2 |
| | Mirachem Corporation | Mirachem 500 | 25% | 75.86 | <input type="checkbox"/> | For Protect-o-coat |

Conclusion: Mirachem 500 removed 17.80% of Rosin #2 and 75.86% of protect-o-coat from glass coupons via heated immersion with agitation.