# CLEANING LABORATORY EVALUATION SUMMARY

| | |
|---|---|
| SCL #: | 2006 |
| DateRun: | 09/18/2006 |
| Experimenters: | Jason Marshall |
| ClientType: | Cleaner Manufacturer |
| ProjectNumber: | Project #1 |
| Substrates: | Plastic |
| PartType: | Part |
| Contaminants: | |
| Cleaning Methods: | Immersion/Soak |
| Analytical Methods: | Gravimetric |
| Purpose: | To evaluate compatibility of glass cleaner on window film |
| Experimental Procedure: | The supplied glass cleaner, water and white vinegar were put into 250 ml beakers. A piece of Solar Gard window film was weighed prior to immersion into each solution. One piece of the film was immersed in each solution and allowed to soak for 60 minutes. After the hour, the film was removed, rinsed in tap water and dried using compressed air, followed by wiping with a paper towel. Once dry, the film was weighed again to determine if any change in weight occurred during the immersion. The film pieces were then re-immersed into the liquids and allowed to soak overnight. After 24 hours of immersion, the film was again rinsed, dried and weighed. |
| Results: | The glass cleaner, water and white vinegar all had the same effect on the immersed film. The weight of the film increased only slightly after 60 minutes. The same was true for the 24 hour soak. The table below lists the initial, final and change in weight for the three solutions. |

| 60 Minute Immersion | | | |
|---|---|---|---|
| Solution | Initial Wt | Final Wt | Wt Change |
| DFC Glass Cleaner | 0.6999 | 0.7013 | 0.0014 |
| Water | 0.7056 | 0.7068 | 0.0012 |
| White vinegar | 0.6966 | 0.6984 | 0.0018 |
| | | | |
| 24 Hour Immersion | | | |
| Solution | Initial Wt | Final Wt | Wt Change |
| DFC Glass Cleaner | 0.6999 | 0.7028 | 0.0029 |
| Water | 0.7056 | 0.7082 | 0.0026 |
| White vinegar | 0.6966 | 0.6994 | 0.0028 |

| | |
|---|---|
| Summary: | |
| Conclusion: | No difference in the three solutions was observed at 60 minutes and 24 hours of immersion of window film. |