

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1997
 DateRun: 08/08/1997
 Experimenters: Jason Marshall, Prashant Trivedi
 ClientType: Cabinet Manufacturer
 ProjectNumber: Project #1
 Substrates: Plastic
 PartType: Part
 Contaminants: Adhesive
 Cleaning Methods: Manual Wipe
 Analytical Methods: Tactile, Visual
 Purpose: To clean supplied parts with two cleaners

Experimental Procedure: Three samples were selected at random from the supplied parts. Two cleaners were chosen using the lab's database. The Brulin cleaner was used full strength and at the manufacturer's recommended dilution (10%). Loctite was used full strength.

The cleaner was applied to the sample using a swab. After the application, the cleaner was wiped off using a paper towel. The amount of pressure used to clean the contaminant off of the sample was noted. The two Brulin solutions were applied to opposite ends of one sample, Loctite was used on the second and the final coupon was cleaned using just the paper towel.

SUBSTRATE MATERIAL: Plastic
 CONTAMINANTS: 3M contact cement--30NF
 CONTAMINATING PROCESS USED: Samples were received contaminated from client

Results: The Loctite cleaner was the quickest and easiest of the selected cleaning solutions. The Brulin 100% solution was the next best, but it required more time and effort than the Loctite solution. The Brulin 10% solution required a lot of effort to produce any cleaning; the 10% solution needed almost as much effort as using no cleaner.

| Cleaning solution | Brulin 100% | Brulin 10% | Loctite 100% | No cleaner |
|-------------------|------------------------|----------------------------|--------------------------|----------------------------|
| Observations | good cleaning | acceptable cleaning | excellent cleaning | fair cleaning |
| | some pressure required | a lot of pressure required | little pressure required | a lot of pressure required |

Summary:

| Substrates: | | Plastic | | | |
|----------------------|---------------|----------|-------------|-------------------------------------|---------------|
| Contaminants: | | Adhesive | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Brulin Corporation | Compliance | 10 | | <input type="checkbox"/> | |
| Brulin Corporation | Compliance | 100 | | <input checked="" type="checkbox"/> | |
| Loctite Corporation | 7360 | 100 | | <input checked="" type="checkbox"/> | |

Conclusion: As of the preliminary trial, the Loctite solution was the best of the selected cleaning chemistries. The Brulin solution showed adequate cleaning when used at full strength. The next set of testing will include these two solutions as well as some other cleaners. The stock laminate will be cut into coupons and contaminated with the supplied cement. The cleaning procedure will be the same. Results will be measured through visual, tactile and gravimetric methods.