

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2022

DateRun: 09/30/2022

Experimenters: Alicia McCarthy, Marlen Galan

ClientType: Tool Manufacturer

ProjectNumber: Project #1

Substrates: Steel

PartType: Coupon

Contaminants: Inks, Paints

Cleaning Methods: Ultrasonics

Analytical Methods: Visual

Purpose: To evaluate selected products for UV ink removal using heated ultrasonics with various dilutions of SC Supersolv

Experimental Procedure: Sc Supersolv was diluted to a 75% concentration in an unheated ultrasonic bath at a common parts cleaning frequency of 40kHz. Each solution was degassed (removal of any excess bubbles to improve energy transmission) for 10 minutes. A saw blade was immersed into a solution and cleaned for 9-10 minutes. At the end of each cleaning cycle parts were observed for paint removal and wiped once with a wypall paper towel. Testing completed after a total 30 minutes.

Results:

| Ink Color | Minutes | Visual Observations | |
|-----------|---------|---------------------|--------------|
| | | After Cleaning | After Wiping |
| Blue | 10 | No removal | No removal |
| | 20 | No removal | No removal |
| | 30 | No removal | No removal |
| White | 10 | No removal | No removal |
| | 20 | No removal | No removal |
| | 30 | No removal | No removal |

The ink on both parts did not have any removal after each cleaning cycle or with the addition of a Wypall wipe step. Vigorous wiping after testing only removed some flakes. A heated immersion and ultrasonics can be explored next to see if the temperature could improve the removal.

Summary:

| | | | | | |
|----------------------|------------------------------|---------------|--------------------|--------------------------|---|
| Substrates: | | Steel | | | |
| Contaminants: | | Inks, Paints | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Gemtek Products | SC Supersolve Safety Solvent | 75% | 0.00 | <input type="checkbox"/> | No removal on either ink, blue and white, on a saw tool part. |

Conclusion: Unheated ultrasonics using a 75% concentration of SC Supersolv was not effective.