

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2007

DateRun: 11/29/2007

Experimenters: Heidi Wilcox

ClientType: Wire & Cable Mfr

ProjectNumber: Project #1

Substrates: Steel

PartType: Part

Contaminants: Paints, Resins/Rosins

Cleaning Methods: Immersion/Soak

Analytical Methods: Tactile, Visual

Purpose: To screen potential cleaning products for removing paint/resin from steel parts

Experimental Procedure: Two products from the previous trial were identified for further testing on client supplied parts. While all 6 previous products showed potential, products were picked for more extensive testing based on performance, EH&S and possible cost considerations. Circular steel parts approximately 6 inches in diameter with resin on them were immersed in the two solutions of 100% concentration at room temperature, approximately 68F.

The parts were allowed to sit in the solution to determine what effect the cleaning products would have on the resin. Observations were made at 60, 120, 180, 240 and 300 minute intervals as well as overnight. Any signs of interaction between paint/resin and cleaner were recorded.

Results:

Product	Initial Appearance and observations
EnviroCare Floor Stripper	Clear fizzed with streaks of color
60 min	soln was amber in color and resin was still hard
120 min	Resin softening more. Can scrape off thin areas of resin on the side of the part. Solution darkening.
180 min	Top layers softening. Can scrape more resin off. Solution was darker
240 min	Same, top layer of resin softening and easier to scrap thin layers. Solution became dark.
300 min	Same
overnight	Solution very dark. Thinner areas of resin can be scraped and wiped off. Top layer of thicker areas is softening.
Green Solutions	Clear
60 min	Soln slightly amber in color so some dissolving. Resin softening on top
120 min	Resin softening more, can wipe off top layer
180 min	Same. Resin softening on top layers, easy to wipe/scrape off.
240 min	No change
300 min	Thinner layers of resin down to the bare metal with wiping and scraping. Thicker areas of resin, ¼ to ½ inch, half gone as top layers soften.
overnight	Same

Summary:

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Substrates:	Steel				
Contaminants:	Paints, Resins/Rosins				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Rochester Midland Corporation	EnviroCare Floor Stripper	100		<input checked="" type="checkbox"/>	
Spartan Chemical Company	Green Solutions Floor Stripper	100		<input checked="" type="checkbox"/>	

Conclusion:

Both the Rochester Midland and Spartan products worked. The cleaners soften the resin on the top which allows it to be wiped or scraped off in increments. These two will be tested warm, at 120F to see if this will speed up cleaning time.