

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2019

DateRun: 11/05/2019

Experimenters: Alicia McCarthy

ClientType: General

ProjectNumber: Project #1

Substrates: Wood

PartType: Part

Contaminants: Paints

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To evaluate and compare Benco B7 with Methylene chloride, Super Remover New Generation, and Super Remover Professional Grade paint stripping effectiveness on wood furniture.

Experimental Procedure: A table with varnish was sectioned off into three areas: one area for each paint stripper. Paint strippers were applied using a brush to the surface with three coatings and sat on the surface for five minutes before stripping. The surface was stripped using a putty knife by the worker and scraped three times per paint stripper. A rinse process using lacquer thinner was used on the table before using a 150-grit sandpaper sheet to sand each section that was stripped. A substrate visibility rating was given to each area from 0% -100%, and the sandpaper was evaluated based on visual observations. Sandpaper with a gummy texture meant there was chemical and or varnish residue, and sandpaper with wood grains meant the varnish and chemical were completely stripped. The stripping process was repeated on three baluster legs with an unknown white paint for additional testing.

Results: During the initial application of the paint strippers, Benco B7 evaporated quickly after applying (See Figure 1). Super Remover New Generation and Super Remover Professional Grade was much more visible after applying and did not dry out like Benco B7. The worker did note that there was a stronger smell with the Super Remover Professional Grade.

Figure 1: (Left to right) Benco B7, Super Remover New Generation, and Super Remover Professional Grade at 0-3 minutes after applying three brush stroke applications with a paint brush.

Super Remover New Generation and Super Remover Professional Grade came off easier after five minutes on the table surface. Based on worker feedback, Super Remover New Generation had a nicer hand feel when scraping, but it did not take off the sides of the stripping area as cleanly as Super Remover Professional Grade. The worker felt that Super Remover Professional Grade was the most effective paint stripper and cleanly removed the varnish. (See Figures 2 and 3). Benzo B7 could not completely strip the varnish after five minutes and barely any surface area was visible after scraping. The worker stated that he would normally have to continuously apply Benzo B7 to the table to allow a proper amount of the surface area to be coated to get that same removal as Super Remover New Generation and Super Remover Professional Grade.

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|----------|------------------------------|----------------------------------|
| Benco B7 | Super Remover New Generation | Super Remover Professional Grade |
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Figure 2: Paint strippers being removed with a putty knife after five minutes.

Figure 3: (Left to right) Benco B7, Super Remover New Generation, and Super Remover Professional Grade stripped with putty knife after five minutes.

Visibility of Substrate Rating

| Paint Stripper | Substrate Visibility |
|----------------------------------|----------------------|
| Benco B7 | 30% |
| Super Remover New Generation | 90% |
| Super Remover Professional Grade | 100% |

Sandpaper Test

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| Paint Stripper | Sandpaper Visual Description |
|----------------------------------|---|
| Benco B7 | Gummy; varnish residue; no chemical residue |
| Super Remover New Generation | Wood grains; no varnish or chemical residue |
| Super Remover Professional Grade | Wood grains; no varnish or chemical residue |

Baluster Legs with Unknown Paint

The unknown white paint was a lot harder to remove on the baluster legs. Super Remover Professional Grade was visible even after five minutes on the surface area of the legs compared to Benco B7 and Super Remover New Generation (See Figure 4).

Figure 4: (Left to right) Benco B7, Super Remover New Generation, and Super Remover Professional Grade at 0-3 minutes after applying three brush stroke applications with a paint brush.

Baluster legs are normally paint stripped through a dipping process in the paint stripper. This was not the best method for paint stripping these parts. The parts were much harder to strip manually, and only a small amount of paint could be removed using the putty knife (See Figure 5). The worker stated that he felt Super Remover Professional Grade was comparable to Benco B7 for this specific test, however, it would be helpful to test using the dip method in future application as a true comparison.

Figure 5: (Left to right) Benco B7, Super Remover New Generation, and Super Remover Professional Grade after five minutes and scrapped three times with a putty knife. Circles highlight areas for comparison.

Summary:

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|----------------------|-------------------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | Wood | | | | |
| Contaminants: | Paints | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Benco Sales Inc. | Benco B7 - Methylene chloride | 100% | | <input type="checkbox"/> | |
| Super Remover | New Generation | 100% | | <input checked="" type="checkbox"/> | |
| Super Remover | Professional Grade | 100% | | <input checked="" type="checkbox"/> | |

Conclusion:

Benco B7 was not as effective and Super Remover New Generation and Super Remover Professional Grade after five minutes of applying to a wood surface and scraping.