

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2015  
 DateRun: 06/14/2015  
 Experimenters: James Keats  
 ClientType: Cleaning Equipment Mfr  
 ProjectNumber: Project #1  
 Substrates: Vinyl Composite Tiles  
 PartType: Coupon  
 Contaminants: Food  
 Cleaning Methods: Mechanical Agitation  
 Analytical Methods: Visual

Purpose: Evaluate beginning, middle, and end effectiveness of iRobot cleaning pad.

Experimental Procedure: Apply soil to 4' X 4' clean vinyl floor, spreading 1g of soil onto even numbered tiles with a swab and odd tiles by dripping 1g of soil onto them (16g per floor). Allow the floor to dry for 48h. The tester then cleans the floor using paper towels and a spray bottle filled with water, beginning by the 1<sup>st</sup> tile. Tester continues to clean until they feel they have finished. The time it takes for the tester to clean the floor is recorded.

To evaluate total soil removal, a visual observation will be made. This observation will be an estimation of the % soil removed from each tile by comparing before and after pictures of the floor. In addition to this rating, observers will also be asked to rate the overall cleanliness of the floor from 1-5 (1 being no soil remaining).

Tile numbers

|   |    |    |    |
|---|----|----|----|
| 4 | 5  | 6  | 7  |
| 3 | 14 | 15 | 8  |
| 2 | 13 | 16 | 9  |
| 1 | 12 | 11 | 10 |

^^^

Tester starts here

Results: The floor was soiled and cleaned once.

- There was some remaining Cola on the floor left when the cleaning water dried.
  - The floor was not rated as completely clean because of this.

**Percent removal Trial 1**

**Time:** 2 minutes 6 seconds

(Ex: 95% means that 5% of the initial soil remained on the tile.)

Observer 1 - rating: 1.5

|      |     |     |     |
|------|-----|-----|-----|
| 100% | 99% | 95% | 97% |
| 100% | 99% | 99% | 97% |
| 100% | 99% | 97% | 97% |
| 100% | 95% | 95% | 95% |

Observer 2 - rating: 1.5

|      |      |     |     |
|------|------|-----|-----|
| 99%  | 98%  | 93% | 95% |
| 100% | 100% | 99% | 95% |
| 100% | 99%  | 99% | 95% |
| 100% | 96%  | 99% | 95% |

Observer 3 - rating: 1.5

|     |     |     |     |
|-----|-----|-----|-----|
| 98% | 95% | 92% | 95% |
| 95% | 95% | 95% | 95% |
| 98% | 95% | 98% | 95% |

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|     |     |     |     |
|-----|-----|-----|-----|
| 95% | 95% | 95% | 92% |
|-----|-----|-----|-----|

Summary:

|                      |                      |                       |                    |                          |                      |
|----------------------|----------------------|-----------------------|--------------------|--------------------------|----------------------|
| <b>Substrates:</b>   |                      | Vinyl Composite Tiles |                    |                          |                      |
| <b>Contaminants:</b> |                      | Food                  |                    |                          |                      |
| <b>Company Name:</b> | <b>Product Name:</b> | <b>Conc.:</b>         | <b>Efficiency:</b> | <b>Effective:</b>        | <b>Observations:</b> |
| Water                | Water                | 100                   | 0.00               | <input type="checkbox"/> |                      |

Conclusion:

While the manually cleaned floor was rated as more clean than the floor cleaned by the Braava unit, it was still not completely clean.