

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2008
DateRun: 08/18/2008
Experimenters: Jason Marshall
ClientType: Cleaner Manufacturer
ProjectNumber: Project #1
Substrates: Textile
PartType: Coupon
Contaminants: Dirt
Cleaning Methods: Mechanical Agitation
Analytical Methods: Light Meter

Purpose: To evaluate carpet cleaners for resoiling levels.

Experimental Procedure: Carpet pieces that were previously soiled and cleaned with The Clean Carpet Answer (client product) and Liquid Formula 90 (industry standard product) were resoiled by placing the carpet sections into the 1-gallon can, making sure the carpet lined the inner wall of the can. Nalgene® tubing cut into 1/8" pieces were poured into the bucket and 2 grams of the AATCC soil was distributed along the width of the can. The can was lidded and placed into a harness attached to a crank shaft. The crank was turned at an average rate of 42 rpm by hand for 5 minutes in one direction, followed by 5 minutes of rotation in the opposite direction. At the end of the 10-minute soiling regime, the carpet was placed onto a carpet template and vacuumed with a Eureka SuperBroom (Brush-Up, Motor-Driven/Brush-Roll) vacuum for 5 strokes in the forward direction followed by the same number of strokes in the backward direction. The carpet pieces were evaluated again using a SPER Scientific Light Meter 840021 used to measure Foot Candles from the surface of the carpet. Visual comparison was also preformed to determine which product looked cleaners.

Results: Both products had some resoiling resistance. The table lists the readings for each cleaner.

The Clean Carpet Answer

| Post Clean | Resoil | Vacuumed | Difference | Ave Difference |
|----------------------------|--------|----------|------------|----------------|
| 9.44 | 8.36 | 8.78 | 0.42 | |
| 11.12 | 8.69 | 9.26 | 0.57 | |
| 11.63 | 8.7 | 9.02 | 0.32 | |
| 10.10 | 8.49 | 9.23 | 0.74 | |
| 11.17 | 9.91 | 10.12 | 0.21 | |
| 10.52 | 7.48 | 7.71 | 0.23 | 0.42 |
| 9.88 | 3.18 | 3.86 | 0.68 | |
| 10.34 | 3.37 | 3.74 | 0.37 | |
| 11.95 | 4.58 | 4.78 | 0.2 | |
| 11.07 | 5.31 | 6.37 | 1.06 | |
| 9.79 | 4.68 | 5.35 | 0.67 | |
| 8.09 | 4.5 | 4.64 | 0.14 | 0.52 |
| 7.43 | 3.58 | 3.62 | 0.04 | |
| 8.07 | 4.34 | 4.66 | 0.32 | |
| 10.67 | 4.2 | 4.91 | 0.71 | |
| 10.52 | 6.22 | 6.73 | 0.51 | |
| 9.27 | 6.22 | 6.31 | 0.09 | |
| 10.09 | 5.78 | 6.23 | 0.45 | 0.35 |
| Product Resoil Overall Ave | | | | 0.43 |
| Liquid Formula 90 | | | | |
| 9.62 | 5.7 | 5.9 | 0.2 | |

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|-------------------------------------|------|-------|------|------|
| 10.57 | 6.3 | 6.52 | 0.22 | |
| 10.31 | 7.53 | 7.95 | 0.42 | |
| 11.18 | 9.08 | 9.78 | 0.7 | |
| 13.06 | 10.8 | 11.11 | 0.31 | |
| 11.06 | 8.45 | 8.75 | 0.3 | 0.36 |
| | | | | |
| 7.57 | 3.95 | 4.19 | 0.24 | |
| 9.14 | 4.5 | 5.72 | 1.22 | |
| 9.80 | 5.47 | 5.99 | 0.52 | |
| 9.82 | 6.4 | 6.65 | 0.25 | |
| 10.87 | 7.75 | 7.97 | 0.22 | |
| 10.33 | 6.42 | 7.11 | 0.69 | 0.52 |
| | | | | |
| 7.37 | 2.8 | 3.03 | 0.23 | |
| 8.57 | 2.77 | 3.84 | 1.07 | |
| 11.07 | 5.2 | 5.84 | 0.64 | |
| 11.63 | 7.79 | 8.56 | 0.77 | |
| 10.83 | 7.58 | 7.85 | 0.27 | |
| 10.73 | 6.96 | 7.26 | 0.3 | 0.55 |
| Product Resoil Overall Ave | | | | 0.48 |

Summary:

| | | | | | |
|------------------------------|----------------------|---------------|--------------------|-------------------------------------|----------------------|
| Substrates: | Textile | | | | |
| Contaminants: | Dirt | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: |
| Environmental Care and Share | Clean Carpet Answer | 100 | | <input checked="" type="checkbox"/> | |
| Chemspec | Liquid Formula 90 | 0.156 | | <input checked="" type="checkbox"/> | |

Conclusion:

The industry standard product resulted in slightly higher post vacuuming light meter readings. Visually, there was no significant difference between the two carpet sections after resoiling and vacuuming. The table lists the average readings for each cleaner.