



**The Cleaning Basics 101 Series:**

Professional  
Custodial Basics

Part 3

Carpet Care

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TEXTBOOK and Course # 3003

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# MODULE 8 THE CARPET CLEANING CHEMICALS

## Carpet Chemistry and the Power of Choice

<b>DETERGENTS</b>	
1. Detergent alone	(should be 7 to 9 pH range)
2. Detergent with encapsulating properties	(cleans and helps retard re-soiling)
3. Detergent with acidic /fiber rinse	(cleans and provides neutralizing after cleaning)

<b>ENCAPSULATION</b>
1. As an additive to cleaning solutions only.
2. A detergent that encapsulates
3. A shampoo that encapsulates
4. An acidic rinse /fiber rinse that encapsulates
Crystallizing, encapsulation leaves a coating that designed to slow down re-soiling. Encapsulation may be offered as a stand-alone product or as an additive to a detergent or shampoo.

<b>ACIDIC / FIBER RINSES</b>
1. Acidic rinse alone (neutralizes chemicals and leaves fabric soft)
2. Acidic rinse with encapsulating properties
3. Acidic rinse with encapsulating properties, and acidic detergent

<b>CARPET PRE-SRAYS / CARPET PRE-CONDITIONERS</b>
A choice of: <b>A. Mild, (pH 7-8) B. Medium (pH 8-9) C. Restorative (pH 9-10)</b>
1. Water solvent Pre-sprays (standard - general soils)
2. Enzyme Pre-Spray (body and animal oils)
3. Combination Pre-sprays (solvent + enzyme)

<b>TRAFFIC LANE BOOSTERS</b>
1. These products will vary by percentages of which solvents they include.
2. Some seem to be stronger than others.
3. Most recommend 1 -2 ounces per mixed gallon of pre-spray you mix.
4. Traffic Lane Boosters are also known as "blended solvents" They are a blend of both water and are petroleum-based solvents that are added by the cleaning technician in a MEASURED amount to your traffic lane pre-spray.
5. They boost the oil cutting ability of your pre-spray without raising /changing the pH of the pre-spray. An example is an 8 pH pre-spray + booster = 8 pH pre-spray, but may cut oils like a 9 or 9.5. or even higher.
6. These boosters are also used as ink and other oil-based stain removers. ALWAYS rinse well is they tend to leave a very high residue rate. There are many brands of booster, but they are all relatively the same.

<b>BONNET SOLUTIONS</b>
1. Bonnet solutions that act as detergents only.
2. Bonnet solutions that contain encapsulants.
3. Bonnet solutions that also act as a foaming shampoo solution.

# MODULE 9 THE T.A.C.T. THEORY

## How to Get the Best Results Every time!

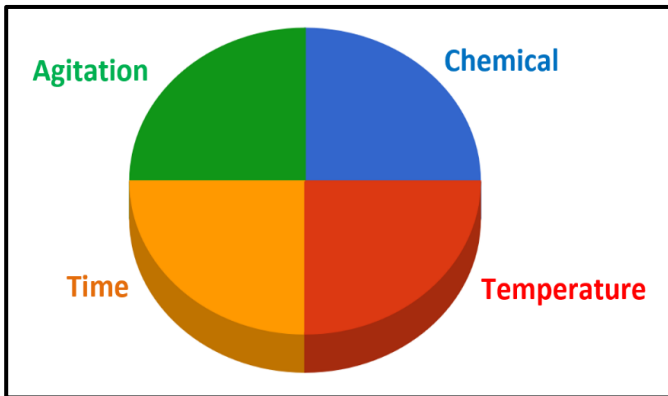
T.A.C.T. =

**T**emperature – Heated cleaning solutions will dissolve soils, especially oily soils faster.

**A**gitation – Loosing soils from a

**C**hemical

**T**ime



If one section is lessened or missing, the other three must increase to fill in the need to make you job come cleanest.

<b><u>250 Degrees – maximum</u> / Levels off.</b>	<p><b>Temperature Samples:</b></p> <p><b>1. Heated Portable Extractors</b> An inline electric heating unit. Will heat 160-200 degrees. Must keep up wand solution flowing to achieve desired heat.</p> <p><b>2. Truck-Mounted Carpet Cleaning</b> Heated by either propane, exhaust, or other source, the heat is more intense (hotter), and generally more efficient.</p> <p>Generally, the higher the cleaning pressure used in both portables and truck -mounted equipment, the hotter</p>
<b>↑ Continues upward ↑</b>	
<b>+18 degrees ↑</b>	
<b>= 172 degrees</b>	
<b>+18 degrees ↑</b>	
<b>= 154 degrees</b>	
<b>+18 degrees ↑</b>	
<b>= 136 degrees</b>	
<b>+18 degrees ↑</b>	
<b>118 degrees - Base temperature / Starting point.</b>	

the temperature at the wand when the hot solution meets with the carpet face fiber. When desiring the hottest temperature, the more the wand is used without stopping / breaks /moving furniture, the hotter the solution stays. Remember, the hotter the temperature, the greater ability to melt the oily carpet soils = most common.

## OLEFIN / POLYPROPYLENE



Red dye and other water-based dyes do not stain.



Two pictures above show melted yarn from dry friction.



Motor oil stain on olefin garage carpeting.

### About Olefin

1. Olefin was the most popular commercial carpet made until recent years.
2. It is solution dyed meaning the fiber (filament) is dyed all the way through; making it bleach and fade proof.
3. Olefin is the least absorbent of all yarns – 0%.
4. Dries the fastest of all yarns.
5. Olefin is generally a very hard, and strong yarn.

### About Cleaning

1. Olefin /Polypropylene absorbs and stain with oil-based items like, tar, grease, cooking oils, parking lot oils, and other true petroleum-based oils.
2. It does not stain with water-soluble oils like butter, oily sauces, salad dressings, and other water-soluble oils.
3. It also does not stain with anything that is water soluble including urine, wine, sports drinks, dairy drinks, and many others.

### Cleaning Guidelines:

1. All cleaning, spotting, and stain removal chemistry are safe on olefin.
2. All cleaning methods are safe with olefin.
3. It is strongly recommended that all cleaning leave as little residue as possible. Olefin tends to magnify cleaning residues.
4. Olefin tends to magnify soils and tends to re-soil quickly.

### 3. Types of Interim Maintenance Systems: ROTARY BONNET/BRUSH SYSTEMS

(Mostly surface soils removed.)

1. Pre-vacuum and pre-treat the stains, and the specialty spots like oily spots.



2. Mix shampoo solution according to directions. The shampoo solution may be acidic, neutral, or alkaline pH. In general, utilize the alkaline solution, with a pH of 8 to 9 pH for most oily soil removal. Ideally use an encapsulating shampoo.
3. Apply the shampoo solution evenly across a 10' x 10' area using a pump sprayer. Do not over wet the carpet.



Pump Sprayer

4. Choose from:

1. Rotary floor machines with proper brush attached.



Floor machine + brush /bonnet + wet vacuum & floor tool.

2. Floor machine + brush + solution tank + wide tool.



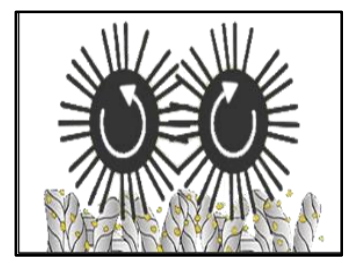
Floor machine + solution tank + brush + wet vacuum

5. Be sure to overlap at least 50% over each previous pass to provide an even cleaning.

6. Option: Follow the shampooing with a carpet extractor to rinse any remaining soils. Extraction may be required in heavy traffic areas. If the traffic area has been shampooed, and the traffic pattern appears grey rather than clean, you must extract (rinse the carpet).



Portable Extractor Samples



A cylindrical brush machine may be used instead of a floor machine.