

# Power-Kleen

## Titration Kit

### Titration Instructions

Perform this test to determine the concentration of parts washer chemical by titrating the alkalinity of the solution with an indicator and a drop count. The results determine the number of ounces of washer chemical to add per gallon of water-capacity. This test, which consists of an "indicator" and a "titrant" (acid), shows the concentration of POWER-KLEEN in solution. **Caution:** Wear eye protection and gloves during test.

Take a sample of the parts washer solution from below the surface. Avoid collecting oil in the sample. Allow the solution to cool to room temperature.

#### For accuracy:

- Filter the cooled solution through a coffee filter to remove impurities and make it clear enough to see the color change.
- Use clean test tools. Always clean the test tube before each test.
- Hold the acid bottle vertically when adding drops to ensure consistent droplet size.



1. Pour the appropriate amount of washer solution (as listed in the chart below) into marked Test Tube.
2. If the solution is murky, add another 12.5 ml of clean water for clarification. Swirl the test tube to mix the solution thoroughly.

3. Add 5 droplets of the Phenolphthalein Indicator. The sample solution will turn pink. Again, swirl the test tube to mix the solution thoroughly.





4. Add the acid (verify the percent for your Power Kleen Detergent in the chart below), and count the drops while swirling the sample solution until the pink color is completely gone. Remember to hold the acid bottle vertically when adding drops to ensure consistent droplet size.



5. Reading: Use the chart below to find the “titration number” for your particular Power Kleen chemical. Divide your “drop count” by the titration number to calculate the oz/gal of concentration.

Chemical Type	Test Solution Amount	Acid %	Drop Count	Titration Number
Power-Kleen I	12.5 ml	15	Divide	10
Power-Kleen I L	12.5 ml	15	Divide	4
Power-Kleen II	12.5 ml	15	Divide	5
Power-Kleen III L	12.5 ml	15	Divide	2
Power-Kleen IV	50 ml	7.5	Divide	0.50
Power-Kleen V	25 ml	7.5	Divide	1.5

Pour test solution into machine reservoir, wash Test Tube, and repeat to confirm results. Most Parts Washer Manufacturers recommends that the chemical concentration be maintained between 2 oz and 8 oz per gallon, depending on the cleaning required and machine specifications. If, for example, the test indicates 3 oz per gallon and the desired concentration is 6 oz, then sufficient amount of chemical to bring the solution to full strength or use our calculator at:

[http://marttechservices.com/Chemical\\_Concentration\\_Calculator.htm](http://marttechservices.com/Chemical_Concentration_Calculator.htm)

#### Titration Kit refills:

Chemical Type	Part Number
Power-Kleen I, I L, II, III L	22200
Power-Kleen V	22205

Please contact: MART Tech Service 1-800-543-6278



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