**A Comparative Study On Fabric Softeners**

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**Background**

Some people use a liquid fabric softener as a normal step while they are doing their laundry, while others view them as harmful. Liquid softeners and dryer sheets contain chemicals that can be bad for our health and the environment. A less harmful alternative present on the market: laundry dryer balls.

The dryer balls claim to:
- **Reduce Drying Time**
- **Eco-friendly**
  - Reduced use of chemicals on our clothes
  - Reduced amount of chemicals going back into our water supply
  - Cuts down on packaging waste
- **Cut the cost** (drying times are lower)
- **Easy Use**

Dryer balls are becoming a popular alternative to the use of the traditional liquid softeners.

**Objectives**

The goal of this research is to compare the efficiency of 4 different types of Fabric Softeners; wool dryer balls, silicon dryer balls, fabric softener sheets and liquid fabric softener.

**Methods**

The performance of a liquid fabric softener, a fabric sheet softener, wool dryer balls, and silicon dryer balls on 3 different fabric types; wool, polyester and cotton were compared.

All 3 types of fabric were washed separately using the 4 different methods, meaning 12 washes in total. The data was compared by hand and pilling tests using AATCC regulated tests.

**Findings**

Similar results were found across all three fabrics during the hand test. Each individual softener method performed similarly despite the type of fabric it was being tested against.

Liquid softener had the best pilling results, and cotton experienced pilling no matter what fabric softener was used.

**Conclusion**

In conclusion, the liquid fabric softener had stronger results than the other 3 methods due to the liquid softener being a wet/chemical finish rather than a dry mechanical finish. On the other hand, the silicone dryer balls performed poorly, contrary to what was expected.

This research can help guide professional laundry and dry-cleaning businesses to make better decisions when laundering their customers’ garments.

Furthermore, due to the liquid detergent having the best results, while also being the least sustainable, researchers should do further investigation into how liquid fabric softeners could be made sustainable.