

Are you looking for lint-free wipers?

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The USP General chapter <797>, Pharmaceutical compounding – Sterile Preparations, requires the use of lint-free or non-linting wipers.

But what is a lint-free or non-linting wiper? Does this type of wiper exist at all?

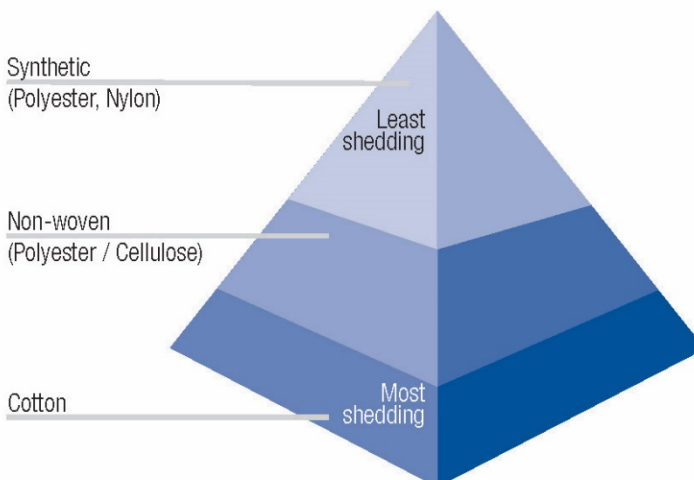
Lint is defined as fuzz consisting especially of fine raveling's and short fibers of yarn and fabric, or a fibrous coat of thick convoluted hairs borne by cotton seeds that yields the cotton staple¹. We all know about the lint collected in our clothes dryer at home.

There are lint-free wipers, but not as most people envision them. IEST's recommended practice, (**IAEST- RP-CC004.4**), **Evaluating Wiping Materials Used in Cleanrooms and Other Controlled Environments**, has a definition for a lint-free wiper. It states, *"While a truly lint-free wiper does not exist, wipers exhibiting few, if any, fibers or other contamination, **visible without magnification**, which is separate from, or easily removed from the wiper material in a dry condition meet this definition. Materials containing natural fibers (e.g., any cotton, or cellulose content of 65% or more) are generally not considered to meet this definition."*

In other words, all wipers have some level of lint or fibers, some more than others. There are a few wipers that do not fit the definition of lint-free, including cotton wipers. This makes sense. Cotton is included in the definition of lint, so cotton wipers will not be included in the group of wipers that meet the definition of "lint-free."

This applies to both dry and pre-wetted types of wipers. **Synthetic-based wipers made from a continuous filament yarn (polyester and nylon primarily) have the lowest levels of particle and fiber release.** Wipers made from staple yarns (natural or synthetic) or a combination of materials such as cellulose and a staple fiber have the greatest potential for generating particles and fibers. The wiper material and processing parameters also greatly influence the particle and fiber levels. **The message is still the same: there is no such thing as a totally lint-free wiper.**

Here is a chart that shows the **particle generation rate** from several types of wiper materials with cotton being most shedding and synthetic – least shedding material:



At Texwipe, we prefer to say “**low lint**” wipers to avoid the misleading term of “lint-free” wipers.

Texwipe’s first **low lint wiper** made in 1964 created the industry called “contamination control.” Since then we have advanced our processes and created near “lint-free” wipers with very low particle and fiber generation properties that may be safely used in critical and controlled environments. For example, our polyester and nylon wipers use continuous filament synthetic yarn and proprietary processing steps that have far less particle and fiber generation in comparison with a cotton, staple fiber or cellulose-based wiper.

If you need a minimal particle-generating wiper, consider Texwipe’s best-in-class synthetic-based wipers.

[*Search here for Texwipe low-lint wipers*](#)

¹[Merriam-Webster New Collegiate Dictionary G. & C. Merriam Company, Springfield, Massachusetts ©1977, page 670.]