

TYPES OF CLEAN ROOM WIPE MATERIAL

A clean room wipe is a low lint cloth used in a clean room or controlled environment to wipe away surface contamination and spills. Common cleanroom contaminants would be solid particles, liquids and bio contaminants. Different types of clean room wipe material have been developed to offer absorbency, cleanliness, resistance to chemicals and abrasion resistance.

DRY KNITTED CLEANROOM WIPES are the cleanest level of wipes. Most widely used in a Class 10 (ISO 4) and Class 100 (ISO 5) cleanroom. The wipes are made from polyester and have a variety of edges and styles.

- Strong, will not tear, non-shedding
- Clean, low in particles, used in the most critical applications and critical clean rooms
- Soft, Non-Abrasive
- Sterile, low bio contaminants
- Particle capture and retention properties

100% CONTINUOUS FILAMENT POLYESTER CLEAN ROOM WIPES– Types of Edges and Styles

- **Knife Cut Edge** – Edges cut with a knife
- **Laser Sealed Edge** – Edges sealed with a laser
- **Ultrasonically Sealed Edge** – Ultra sonic heat seal to cut and seal the edges
- **Bordered Sealed Edge** – Four sided border sealed edge
- **CapSure Treated** – A process that enables wipers to capture and retain more contaminate particles.
- **Light Weight or Heavy Weight** – Thinner or thicker material
- **Quilted Two Ply** – Two wipes bonded together using a diamond pattern, high absorbent
- **Sterile** – Irradiated, validated sterile and low endotoxin levels

DRY NON WOVEN CLEAN ROOM WIPES can be made through many different methods. **Meltblown** material is extruded and formed into a batting which is then thermally bonded. Another method has **Hydroentangled** fibers which has thousands of high pressure pin size jets that shoot water at the batting of blended fibers to form the material. This method uses no binders. Each fiber material has unique qualities making it suitable for different applications as a clean room wipe.

- Wide range of material to suit different applications
- Economical
- High absorbency
- Strong
- Clean low linting

TYPES OF NON WOVEN CLEAN ROOM WIPE MATERIAL

- **Polypropylene/Cellulose** – High absorbency, durable, resistant to acids and other chemicals, autoclavable
- **Blue Polypropylene/Cellulose** – Visual inspection background, general purpose cleaning
- **Polyester/Lyocell** – Cleanest nonwoven, high absorbency, exceptionally soft, works well with IPA and other solvents
- **Bonded Polypropylene/Cellulose** – Economical, high absorbency, cellulose core for excellent wicking of solvents
- **Meltblown Bonded Polypropylene** – Multi layer, high durability and sorbent, engineered for use with acids, certified for contact with food,

- **Hydroentangled Rayon/Polyester** – Highly absorbent with all liquids, durable, soft, non-scratching
- **Spunlaced Polyester** – Very clean, absorbent with solvents, soft non-scratching, strong wet or dry
- **Cotton** - 100% Biodegradable, low ionic contamination, heat resistant, high absorbency, no binders
- **Rolls of Poly/Cellulose** – special applications requiring roll material

DRY LOW LINT LAB WIPES are made of all purpose industrial nonwoven material. Durable and low linting for use outside of the cleanroom, a controlled environment or lab area.

TYPES OF LOW LINT LAB WIPE MATERIAL

- **Industrial Rayon/Polyester** – Hydroentagled blend, silicone free, no binders or other chemicals, soft, strong and durable
- **Industrial Rayon/Polyester Rolls** – Special applications requiring roll material or to fit in a dispenser
- **Rayon/Cellulose** – 100% Biodegradeable, tissue for cleaning lenses, extremely soft
- **Manila Hemp** – 100% Biodegradeable, low lint, light weight
- **Rayon** – heat resistant, highly absorbent, soft, light weight, chemically compatible with common cleaning and disinfecting solutions
- **Cotton** – Strong, use in high heat applications, highly absorbent, works well with IPA and other solvents

STERILE WIPES have been gamma irradiated to eliminate all living organisms. The Sterility Assurance Level (SAL) of a wipe is the probability of any given wipe being non sterile after being exposed to a validated sterilization process. A sterile clean room wipe is available in different styles. The wipe may be ordered gamma irradiated but has not gone through the validation process. The next sterility level would be for the clean room wipe to be gamma irradiated and also validated sterile. A new process for the clean room sterile wipe ensures they have low pyrogen or endotoxin levels. Pyrogen is the outer membrane of Gram-negative bacteria that can cause a fever. The term “endotoxin” came from the discovery that portions of the bacteria can cause toxicity. The use of low endotoxin wipes reduces the chance for pyrogens to be introduced to the product and sterile environment. Another form of sterile clean room wipes is saturated with a chemical or solution.

TYPES OF STERILE WIPE MATERIAL

- **Polyester Knife Cut Edge**
- **Polyester Sealed Edge**
- **Polyester Two Ply Tubular Construction**
- **Polyester CapSure Treated**
- **Poly/Cellulose**
- **Bonded Rayon/Latex Exterior – sponge**

PRESATURATED CLEAN ROOM WIPES simplify the workstation and equipment wipe down process while providing a higher level of clean room safety. The presaturated wipe is available in many materials, solutions and packaging styles.

SOLUTIONS FOR PRESATURATED STERILE OR NON STERILE WIPES

- **Isopropyl Alcohol (IPA)**
- **Ethanol**
- **Sodium Hypochlorite – commonly know as bleach**
- **Hydrogen Peroxide**

- **Decon Clean – cleanroom cleaner**
- **Stainless Steel Cleaner**

PRESATURATED CLEAN ROOM WIPE MATERIAL

- **Polyester Knife Cut**
- **Polyester Sealed Edge**
- **Poly/Cellulose**
- **Meltblown Polypropylene**

All wiping and cleaning requirements vary from clean room to clean room. It is important to find the clean room wipe which will meet the needs for each process in the clean room. A large selection of wipe material and solutions are available for testing and evaluations. Call our customer service department or visit our web site at www.CleanRoomWorld.com for additional information.