



Learning about Contamination Control - Part 6: Choosing the Right Wipe



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How do you Choose the Right Cleanroom Wipe?

Introduction

Cleanroom wipes have been developed to effectively remove contaminants, particles, and any residual material in critical manufacturing and controlled environments.

They are the perfect tools for cleaning any surface in a cleanroom, including walls, machinery, fixtures, transport carts, or any other production materials.

The main factors to consider when comparing cleanroom wipes for suitability are:

- Physical properties and characteristics
- Edge treatment
- Size
- ESD requirements
- ISO classification of cleanroom

The wipes substrate is key to determine factors such as cleanliness, durability, water/solvent absorbency, chemical resistance, particle count and cost.

Types of wipes

Impregnated Wipes

Impregnated wipes are an excellent solution for disinfection of surfaces within a cleanroom. One of the main advantages of using impregnated wipes is the convenience of not having to manually mix IPA / water solvents. Each wipe contains the exact amount of IPA and DI water saving, technicians time on mixing, spraying, or applying the correct amount of liquid to get the job done effectively. Technicians simply open the bag and pull out an impregnated wipe that is ready to be used. Impregnated wipes are also available sterilized for high grade cleanroom environments. For applications where the exact amount of IPA is critical, then an impregnated wipe should be used instead of manually wetting a dry wipe.

Polyester Wipes

Dry knitted or woven wipes are manufactured with a continuous filament and are low in particulates making polyester wipes one of the cleanest substrates. Polyester wipes offer durability, strength and resist abrasion under rigorous use. Our low lint continuous polyester cleanroom wipes are commonly used for wiping sensitive surfaces, research work areas, or finished products and widely used in Class 10 (ISO 4) and Class 100 (ISO 5) cleanrooms and can be Gamma Irradiated for sterility.

Non-Woven Wipes

A cellulose and synthetic blended hybrid provides additional absorbency for spill clean-up and removal of thick liquids. Non-woven wipes are commonly used where liquid retention is important. These are one of the most popular cleanroom wipes for general wipe down and spill control in cleanrooms classified at ISO 6 (Class 1000) and above. As well as being one of the most economical wipes, non-woven wipes are low-linting, strong, have chemical resistance properties and low levels of NVR (non-volatile residue).

Edge Treatment

Wipe fabric is produced on large rolls and needs to be cut to size. The very action of cutting the fabric can produce unwanted particles so how the edge is treated gives varying levels of cleanliness.

Choosing the finish is critical as this will determine the correct product. Wipes that are made from the same fabric, for example “Polyester” but have different edge treatments, can have multiple levels of cleanliness. The most common edge treatments are knife cut and laser cut.

Knife Cut

The edge of these wipes is cut with a steel blade, which can leave some fibers on the wipe. These wipes are an excellent option to clean surfaces such as table tops, instrumentation, cleaning benches, or research work areas.

However, these are not recommended to have direct contact with the final product as there is a risk of released particles which could contaminate the product. These wipes are suitable for ISO 5 (Class 100) and above

Laser Cut

These wipes are cut using a laser which also seals the edges using heat.

The laser seal edge treatment is cleaner than the cold knife cut as the fiber ends are melted, leaving no residues behind. These wipes are ideal to clean sensitive surfaces, biosafety cabinets, fume hoods, and wipe off finished products, equipment and parts. These ultrasonically Sealed Edge wipes are suitable for ISO 3 (Class 1) and above.

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Wipes Specifications

	INTEGRITY 100% POLYESTER WIPES	MICROFIBRE DRY WIPES	INTEGRITY NON-WOVEN POLYESTER/CELLULOSE WIPES	PRE-WETTED IPA WIPES
MATERIAL	Polyester	Microfibre	Non-Woven Polyester/Cellulose	Polyester
EDGE TREATMENT	Laser Cut & Sealed	Laser Cut & Sealed	Laser Cut	Laser Cut & Sealed
TYPE	Dry	Dry	Dry	70% IPA / 30% DIW
SIZE	9" x 9"	9" x 9"	9" x 9" 12" x 12"	9" x 9"
USED WITH	IPA Solvent Safe	IPA DE	IPA and Other Solvents	IPA Impregnated
SECTOR	Pharmaceutical Healthcare Clinical	Pharmaceutical Healthcare Clinical	Pharmaceutical Electronics	Pharmaceutical Electronics
SUITABLE CLASS	ISO 4 Class 10	ISO 4 Class 10	ISO 5 Class 100	ISO 4 Class 10
AVAILABLE STERILE?*	✓		✓	

**Some of our wipes can be sterilized by gamma irradiation. Contact us for more details.*

Visit our website: www.integritycleanroom.com

Using Wipes in the Cleanroom

How to Fold Wipes

Folding and using a low-linting wipe in a particular way maximizes efficiency and effectiveness in a controlled environment.

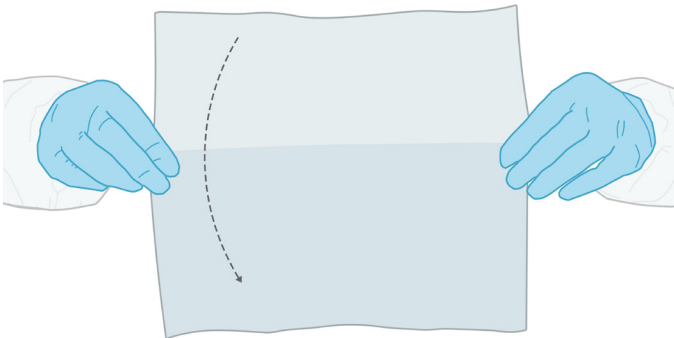
The best technique to clean a surface in your clean room is a wet clean, which usually involves an impregnated wipe and a disinfectant or detergent solution.

The mechanical act of wiping a surface will remove a number of particles from that surface. If the wipe and surface are wet, this will break more of the bonds that hold particles to the surface and allow you to pick up many more particles.

Folding Guide

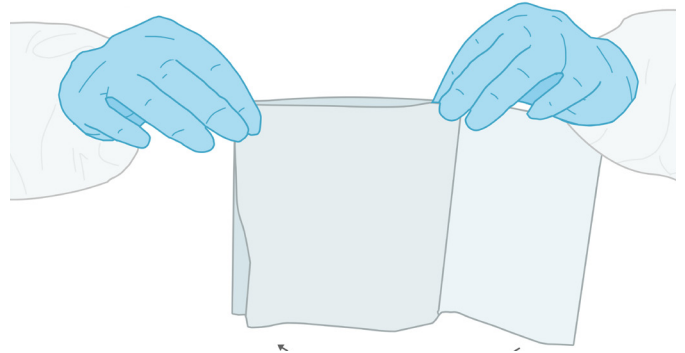
Step 1

Hold the wipe in mid-air. Take the wipe by its edges and fold it in half. The wipe should not be placed on any surface during this folding action



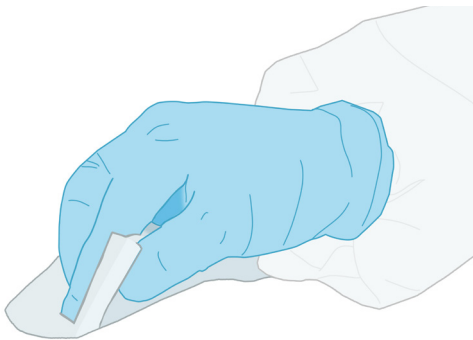
Step 2

Fold the wipe in half again, creating four cleaning faces - two outside and two inside



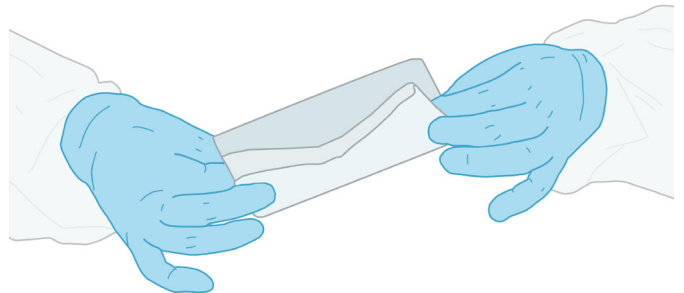
Step 3

Wipe in one direction with slightly overlapping strokes from the cleanest areas to the dirtiest areas, lifting the wipe at the end of each stroke



Step 4

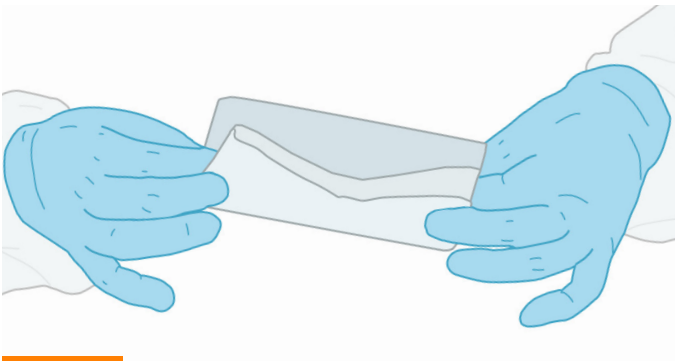
Each face of the wipe will be used for one straight stroke. Turn the wipe over and make a second stroke



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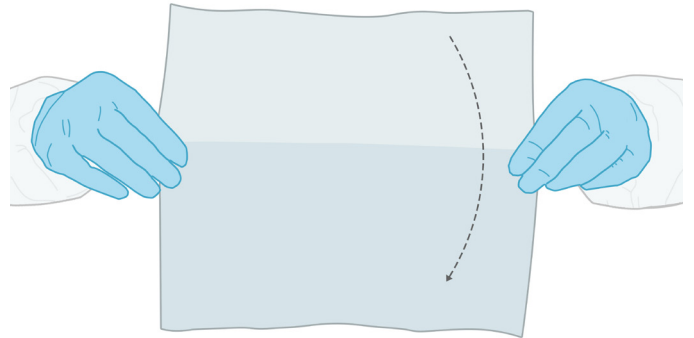
Step 5

Refold the wipe as shown in step 2 to enclose the two contaminated faces and expose the two clean faces. Repeat step 3 & 4 using the two clean faces



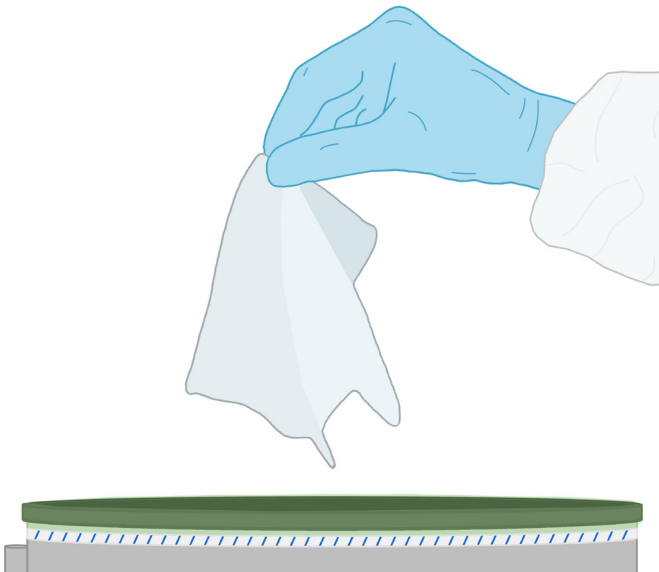
Step 6

The wipe may be completely unfolded, reversed, and refolded beginning at step 1 to enclose the contaminated faces and expose the four remaining clean faces



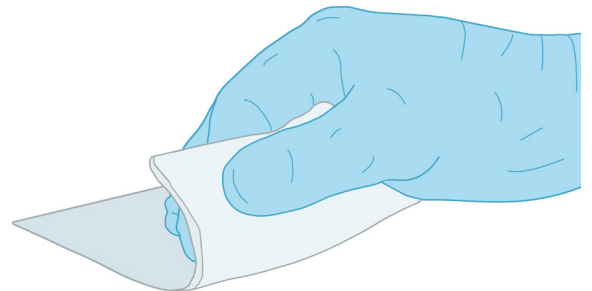
Step 7

Once all 8 sides have been contaminated, dispose of the wipe according to site protocol



Step 8

Continue with a new clean wipe, following all prior steps until the full surface area is clean



For a downloadable guide to use within your clean environment, scan the QR code to the left.

Our Range

Polyester Wipes

Polyester Wipes – Laser
Cut Edge – 140 gsm



Polyester Wipes – Cold
Knife edge – 125 gsm



100% Polyester ESD
Wipes



Integrity Microfibre
Dry Wipes



Polyester/Cellulose Wipes

Integrity Polyester /
Cellulose Wipes



Non-Woven Polyester/
Cellulose Wipes – 68 gsm



Integrity Low Linting
Perforated Roll



Pre-wetted Wipes

Pre-Wetted IPA Wipes –
Laser sealed – 135 GSM



For our full range, follow the QR code to the left where you can find all our wipes. For more information please talk to our expert team.

Call one of our ESD experts: +1 512-713-0127

Notes:

[illegible]

[illegible]

[illegible]



ISO 9001 QUALITY ASSURED

We are focused on meeting our customer's expectations and delivering exceptional customer satisfaction.

CUSTOMER FOCUSED APPROACH

With over 35 years' experience, our service culture is the very core of our customer's success.

STANDARD OF EXCELLENCE

From beginning to end our team of knowledgeable experts are here to help.

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