VWR®
We Enable Science

VWR® Spec-Wipe® Wipers

For Cleanrooms and Other Controlled Environments

VWR® Spec-Wipe® Wipers

For Cleanrooms and Other Controlled Environments

Why choose VWR Spec-Wipe wipers?

VWR Spec-Wipe wipers are designed, manufactured, and tested to meet your critical contamination control needs. All VWR Spec-Wipe wipers are subjected to rigorous quality control procedures to ensure that critical product specifications have been met. Strict guidelines are adhered to during all stages of manufacturing. Internal testing and routine audits are used to monitor the quality of the VWR Spec-Wipe production process.

What makes VWR Spec-Wipe wipers different?

VWR Spec-Wipe products meet demanding standards for quality, consistency, and cleanliness. It is these uncompromising standards that allow us to bring you the following benefits in a cleanroom wiper:

- The attention to detail given to each VWR Spec-Wipe product is uncompromising. We consider factors such as fiber length, integrity of knitted fibers, and the techniques used to convert the wipers to size. Observing these details requires microscopic investigation to ensure VWR Spec-Wipe wipers meet critical specifications.
- Knitted polyester VWR Spec-Wipe wipers are processed in a state-of-the-art ISO Class 4 (FED-STD-209E Class 10/M2.5) cleanroom laundry with a DI water system, extensive in-line saturation facilities, and on-site testing laboratories.

What about Sterile VWR Spec-Wipe wipers?

Sterile VWR Spec-Wipe products receive additional attention due to the stringent requirements of environments in which they will be used:

- All sterile VWR Spec-Wipe products are sterilized with Cobalt 60 gamma radiation to a Sterility Assurance Level (SAL) of 10^{-6} in accordance with ANSI/AAMI/ISO 11137:2006 guidelines.
- Quarterly audits are performed on sterile VWR Spec-Wipe products to validate the sterilization dose.
- Each package is identified with a lot number for traceability.
- Each case of material includes a Certificate of Sterility.
- A sterility validation report is available upon request. To request a copy of this report, please visit www.vwr.com, contact your local VWR Sales Representative or write to:

  VWR Spec-Wipe Sterile Validation Report
  P.O. Box 530
  Spartanburg, SC 29304-0530 USA

What's the right VWR Spec-Wipe wiper for your cleanroom or critical environment application?

To determine which VWR Spec-Wipe wiper is the best for your cleaning application, three key points must be addressed:

1. HOW "CLEAN" DOES THE WIPER HAVE TO BE?

The "cleanliness" of a wiper is determined through the examination of four factors: particle generation, fiber generation, extractables, and metallic ions.

Particle Generation: The biaxial shake test is used to measure particle generation. In this test, a wiper is placed in a container of water and agitated. Under these conditions, particles are released from the wiper (in response to the wetting by the water) and generated by the wiper (in response to the mechanical energy imparted by the agitation). Aliquots of water are removed and assayed to determine the sum of the releasable and generated particles.

VWR Spec-Wipe Wiper Selection Guide

	Product Description	High Sorbency	Low Particle Generation	Low Extractables	Recommended Cleanroom Application
Good					
Spec-Wipe 3e	Lightweight, poly/cell, creped nonwoven	2	3	2	ISO Class 6 (Class 1000)
Better					
Spec-Wipe 3	Poly/cell, nonwoven	1	2	2	ISO Class 6 (Class 1000)
Spec-Wipe 3 Sterile	Poly/cell, nonwoven, sterile	1	2	2	ISO Class 6 (Class 1000)
Spec-Wipe 3 Presaturated	Poly/cell, nonwoven, presaturated	n/a	2	2	ISO Class 6 (Class 1000)
Spec-Wipe 5	Treated, poly/cell, nonwoven	2	1	2	ISO Class 6 (Class 1000)
Best					
Spec-Wipe 4	Knitted polyester	2	2	1	ISO Class 5 (Class 100)
Spec-Wipe 4 Sterile	Knitted polyester, sterile	2	2	1	ISO Class 5 (Class 100)
Spec-Wipe 4 Presaturated	Knitted polyester, presaturated	n/a	2	1	ISO Class 5 (Class 100)
Spec-Wipe 7	Knitted polyester, sealed-edge	2	1	1	ISO Class 3 (Class 1)

Key: 1 = Excellent 2 = Good 3 = Fair

Fiber Generation: A fiber is defined as a particle with a length-to-width ratio exceeding 10 to 1 and a length equal to or greater than 100µm. The purpose of the fiber test is to determine the number of fibers that potentially can be released from a wiper subjected to mechanical stress. A wiper is agitated in 600 mL of filtered, deionized water. An aliquot of this liquid is filtered through a membrane and the fibers are counted microscopically.

Extractables: The preferred method for determining the relative purity of cleanroom wipers is by measuring extractables. The method used for VWR Spec-Wipe wipers entails the immersion of the wiper in solvent for five minutes. The solution is then filtered and evaporated, yielding a nonvolatile residue (NVR). This procedure is done twice using fresh solvent each time. Data is generated using two different solvents: deionized water and 2-Propanol (IPA).

Metallic Ions: VWR Spec-Wipe wipers are analyzed for the ions critical to cleanroom environments. These ions are identified and quantified by ion chromatography.

2. HOW WILL THE WIPER BE USED?

Will it be used for cleaning with a solvent? As an absorbent blotter for spills? Sorbency is an important factor in determining whether a wiper is considered a success in an application.

Extrinsic Absorbency: The total quantity of liquid the fabric will hold.

Wipers can also be used as polishing cloths, to apply disinfectants, to remove excess adhesives, and to prepare surfaces for manufacturing. Your VWR Sales Representative will be able to assist you in determining which VWR Spec-Wipe product is best for your application.

3. HOW WILL THE WIPER BE EVALUATED?

Probably the most difficult aspect of wiper selection is evaluating the wiper objectively using accurate, reproducible methods. VWR Spec-Wipe wipers are evaluated using IEST methodology.

VWR® Spec-Wipe® 3e Wipers (46% Polyester/54% Cellulose, Creped, Nonwoven)

Hydroentangled without the use of chemicals: Reduces extractables and ionic contamination

Hydroentangled: Yields a durable wiper which produces less particulation than some other nonwoven methods

Lightweight polyester/cellulose combination: Economical and sorbent

Creped fabric: Provides improved softness and bulk

VWR Spec-Wipe 3 Wipers (45% Polyester/55% Cellulose Nonwoven)

Hydroentangled without the use of chemicals: Reduces extractables and ionic contamination

Hydroentangled: Yields a durable wiper which produces less particulation than some other nonwoven methods

Polyester/Cellulose combination: Provides good absorbency paired with excellent strength

VWR Spec-Wipe 3 Wipers (Presaturated, Nonwoven Cleanroom)

Available presaturated with 70% IPA/30% DI Water

Packaged in resealable pouches: Maintains integrity of product, preserves cleanliness, and saturation levels

Presaturated wipers: Eliminate squeeze bottles and in-house blending of chemicals; reduce solvent usage and hazardous waste; apply consistent amount of solvent, allowing for standardization of process

Appropriate for use in Electronic, Pharmaceutical, Medical Device, Biotechnology, Industrial (Chemical and Petroleum, Aerospace, Environmental), Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

APPLICATIONS:

- Cleaning of surfaces and laminar flow benches
- Absorbing spills of H_2O and most common solvents
- Cleaning process tools and other equipment
- Cleaning quartzware

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 3e Lightweight Creped Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**89065-956**
Spec-Wipe 3e Lightweight Creped Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	150/Bag, 20 Bags/Case	**89065-958**
Spec-Wipe 3 Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**21914-758**
Spec-Wipe 3 Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	150/Bag, 20 Bags/Case	**21912-042**
Spec-Wipe 3 Poly/Cellulose Nonwoven, 70% IPA/30% DI Water	23 x 23 (9 x 9)	75/Bag, 12 Bags/Case	**47751-458**

VWR Spec-Wipe 3 Sterile Wipers (45% Polyester/55% Cellulose, Nonwoven)

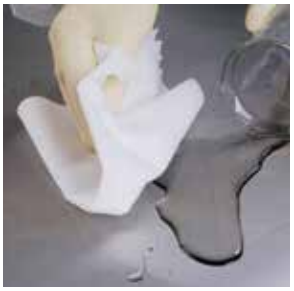
Sterilized by gamma radiation to a Sterility Assurance Level (SAL) of 10^{-6} in accordance with ANSI/AAMI/ISO 11137:2006 guidelines

Hydroentangled without the use of chemicals: Reduces extractables and ionic contamination

Hydroentangled: Yields a durable wipe that produces less particulation than some other nonwoven methods

Polyester/Cellulose combination: Good absorbency with excellent strength

Outer bag: Allows for easy opening



Appropriate for use in Pharmaceutical, Medical Device, Biotechnology, Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

APPLICATIONS:

- Aseptic processing zones
- Cleaning or disinfecting workstation surfaces
- Cleaning or disinfecting processing equipment
- Cleaning of surfaces and laminar flow benches
- Absorbing spills of H_2O and most common disinfectants

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 3 Sterile Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	20/Inner Bag, 5 Inner Bags/Outer Bag 5 Outer Bags/Case	**21914-777**

VWR Spec-Wipe 4 Wipers (100% No-Run Interlock, Knitted Polyester)

100% polyester: Extremely low particle generation; will not break down with use

Cleanroom laundered: Creates a soft wiper for delicate surfaces

Laundered in an ISO Class 4 (Class 10) cleanroom laundry: Reduces particulate ion and extractable contamination

No-run interlock knit: Provides a very durable wiper for rigorous cleaning

Clean-cut edges: For reduced fiber and particulate generation

Appropriate for use in Electronic, Pharmaceutical, Medical Device, Biotechnology, Industrial (Chemical and Petroleum, Aerospace, Environmental), Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

VWR Spec-Wipe 4 Cleanroom Wipers (Presaturated, 100% No-Run Interlock, Knitted Polyester)

Available in 70% IPA/30% DI Water blend

Packaged in resealable pouches: Maintains integrity of product, preserves cleanliness, and saturation levels

Folded wipers: Ready to use right from the package; no additional handling needed

Presaturated wipers: Eliminate squeeze bottles and in-house blending of chemicals; reduce solvent usage and hazardous waste; consistent amount of solvent, allowing for standardization of process

100% polyester: Extremely low particle generation; will not break down with use

No-run interlock knit: Provides a very durable wiper for rigorous cleaning

APPLICATIONS:

- Excellent for cleaning rough, abrasive, or irregular surfaces
- Soft enough for delicate surfaces
- Cleaning where low particle contamination is most critical
- General equipment cleaning

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 4 Knitted Polyester	23 x 23 (9 x 9)	150/Bag, 8 Bags/Case	**21912-046**
Spec-Wipe 4 Knitted Polyester, 70% IPA/30% DI Water	23 x 23 (9 x 9)	30/Bag, 12 Bags/Case	**47751-462**

VWR Spec-Wipe 4 Sterile Wipers (100% No-Run Interlock, Knitted Polyester)

Sterilized by gamma radiation to a Sterility Assurance Level (SAL) of 10^{-6} in accordance with ANSI/AAMI/ISO 11137:2006 guidelines

100% polyester: Extremely low particle generation; will not break down with use

Cleanroom laundered: Creates a soft wiper for delicate surfaces

Laundered in an ISO Class 4 (Class 10) cleanroom laundry: Reduces particulate ion and extractable contamination

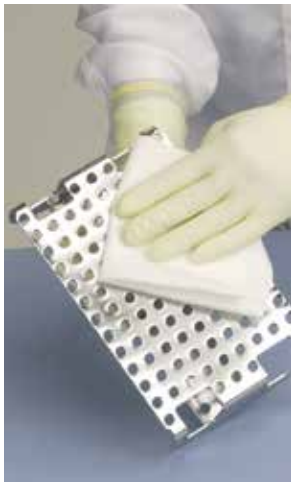
No-run interlock knit: Provides a very durable wiper for rigorous cleaning

Clean-cut edges: For reduced fiber and particulate generation

Outer bag: Allows for easy opening

Linear-tear inner bag: Allows for easy access to wipers

Validated sterile: Provides sterility assurance for proper GMP compliance



Appropriate for use in Pharmaceutical, Medical Device, Biotechnology, Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

APPLICATIONS:

- Aseptic processing zones
- Cleaning or disinfecting workstation surfaces and processing equipment
- Cleaning of surfaces and laminar flow benches
- Absorbing spills of H_2O and most common disinfectants
- Excellent for cleaning rough, abrasive, or irregular surfaces
- Soft enough for delicate surfaces
- Cleaning where low particle contamination is most critical

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 4 Sterile Knitted Polyester	30 x 30 (12 x 12)	20/Inner Bag, 5 Inner Bags/Outer Bag, 3 Outer Bags/Case	**21914-772**

VWR® Spec-Wipe® 5 Wipers (Treated, 45% Polyester/55% Cellulose, Nonwoven)

Hydroentangled: Yields a durable wiper that produces less particulation than many other nonwovens

Polyester/Cellulose combination: Good absorbency with excellent strength

Proprietary surface treatment: Reduces particulation

Appropriate for use in Electronic, Pharmaceutical, Medical Device, Biotechnology, Industrial (Chemical and Petroleum, Aerospace, Environmental), Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

APPLICATIONS:

- Cleaning of surfaces and laminar flow benches
- Absorbing spills of H_2O and most common solvents
- General all-purpose cleaning

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 5 Treated Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**21913-211**

VWR Spec-Wipe 7 Wipers (100% No-Run Interlock Knit, Sealed-Edge, Knitted Polyester)

100% polyester: Extremely low particle generation; fibers will not break down with use

Cleanroom laundered: Creates a soft wiper for delicate surfaces

Laundered in an ISO Class 4 (Class 10) cleanroom laundry: Further reduces particulate ion and extractable contamination

No-run interlock knit: Provides a very durable wiper for rigorous cleaning

Laser cut sealed edges: For lowest levels of fiber and particulate generation

Appropriate for use in Electronic, Semiconductor, Pharmaceutical, Medical Device, Biotechnology, Industrial (Chemical and Petroleum, Aerospace, Environmental), Lab Animal Health, Government, CRO/Clinical, Research, and Education industries.

APPLICATIONS:

- Excellent for cleaning rough, abrasive, or irregular surfaces
- Soft enough for delicate surfaces
- Cleaning where low particle contamination is most critical
- General equipment cleaning

Description	Size, cm (in.)	Packaging	Cat. No.
Spec-Wipe 7 Sealed-Edge Knitted Polyester	23 x 23 (9 x 9)	100/Bag, 8 Bags/Case	**21913-214**
Spec-Wipe 7 Sealed-Edge Knitted Polyester	30 x 30 (12 x 12)	100/Bag, 6 Bags/Case	**21913-216**

Ordering Information

Description	Size, cm (in.)	Packaging	Cat. No.
Dry Wipers			
Spec-Wipe 3e Lightweight Creped Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**89065-956**
Spec-Wipe 3e Lightweight Creped Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	150/Bag, 20 Bags/Case	**89065-958**
Spec-Wipe 3 Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**21914-758**
Spec-Wipe 3 Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	150/Bag, 20 Bags/Case	**21912-042**
Spec-Wipe 4 Knitted Polyester	23 x 23 (9 x 9)	150/Bag, 8 Bags/Case	**21912-046**
Spec-Wipe 5 Treated Poly/Cellulose Nonwoven	23 x 23 (9 x 9)	300/Bag, 20 Bags/Case	**21913-211**
Spec-Wipe 7 Sealed-Edge Knitted Polyester	23 x 23 (9 x 9)	100/Bag, 8 Bags/Case	**21913-214**
Spec-Wipe 7 Sealed-Edge Knitted Polyester	30 x 30 (12 x 12)	100/Bag, 6 Bags/Case	**21913-216**
Sterile Wipers			
Spec-Wipe 3 Sterile Poly/Cellulose Nonwoven	30 x 30 (12 x 12)	20/Inner Bag, 5 Inner Bags/Outer Bag, 5 Outer Bags/Case	**21914-777**
Spec-Wipe 4 Sterile Knitted Polyester	30 x 30 (12 x 12)	20/Inner Bag, 5 Inner Bags/Outer Bag, 3 Outer Bags/Case	**21914-772**
Presaturated Wipers			
Spec-Wipe 3 Poly/Cellulose Nonwoven, 70% IPA/30% DI Water	23 x 23 (9 x 9)	75/Bag, 12 Bags/Case	**47751-458**
Spec-Wipe 4 Knitted Polyester, 70% IPA/30% DI Water	23 x 23 (9 x 9)	30/Bag, 12 Bags/Case	**47751-462**

For typical properties and technical data, please visit www.vwr.com

For information on VWR Controlled Environment Mops, contact your VWR Sales Representative or visit **www.vwr.com**

Mop Head **89012-764**
Frame **33503-126**
Handle **33502-716**

Mop Head **89012-766**
Frame **33502-720**
Handle **33502-716**

More mop head styles available:
33502-730, 33502-732

Mop Head **33502-728**
Frame **33502-718**
Handle **33502-716**

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