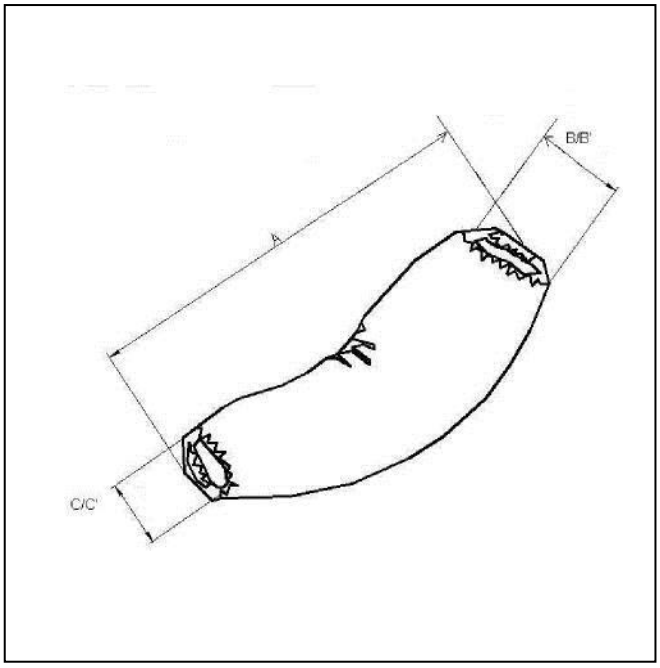
VWR® ADVANCED Apparel for Critical Environments

PRODUCT SPECIFICATIONS

VWR® ADVANCED SF Sleeves

VWR Advanced Sleeves are manufactured from a medium-weight spunbonded polypropylene (SF) fabric that provides significant fluid and barrier protection. These garments exhibit excellent water vapor transmission to optimize breathability and user comfort. Coveralls are rigorously tested and manufactured in an ISO Certified facility under stringent process controls to ensure that each product meets exacting quality standards and performs to specification. Our products are lot controlled and validated through independent lab testing.

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CHARACTERISTICS:

- **Made of Non-woven (SF) breathable fibrer spunbonded laminated polypropylene 56grams/m² white**
- **Excellent particulate barrier: >99,9% Bacterial Filtration Efficiency**
- **Durable fabric with excellent breathability and water vapor transmission rate**
- **Soft, cloth-like fabric**
- **Elastic on both ends**
- **Sonic welded seams**
- **300 pcs/case**

VWR® Advanced sleeve protectors

- Elastic cuffs
- Colour white with sonically welded seams

Size	Qty/Pk	Cat. No.
Universal	300	113-1194
X-Large	300	113-1193

Size	Universal	XL
Length (A)	49.5	54.6
Upper arm, relaxed (B)	11.4	12.7
Upper arm, stretched (B)	24.8	26.7
Cuff, relaxed (C)	8.3	8.9
Cuff, stretched (C)	14.6	15.2

Remark: A':final stretch elastic length

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MATERIAL PROPERTIES

		Result	Test Standard
PHYSICAL PROPERTIES	Particle Shedding (Helmke Drum)	Level II	IEST-RP-CC003.3
	Weight (g/m2)	56	ASTM D3776
	Thickness (mm)	0.21	ASTM D1777
	Tensile Strenght (Avg. lbs./in.)		
	Warp	21.7	ASTM D5034
	Filling	25.0	
	Tearing Strength (Avg. lbs./in.)		
	Lengthwise Yarns	3.4	ASTM D2261
	Widthwise Yarns	4.8	
BARRIER PROPERTIES	Bacterial Filtration Efficiency *	99.9%	ASTM F2101
	Water Resistance	Pass	AATCC Method 42
	Synthetic Blood Penetration Resistance	Pass	ASTM F1670-08
COMFORT PROPERTIES	Water Vapor Transmission Rate (Avg. g/m²/24 hrs.)†	777	ASTM E96
	Delta P Breathability (mmH2O/cm2)	>102	MIL-M-36954C
	Air Permeability (cu. ft./min./sq. ft.)	0.06	ASTM D737
CHEMICAL RESISTANCE	Sulferic Acid (70% Concentration)	Pass	ASTM F903
	Phosphoric Acid (85% Concentration)	Pass	
	Hydrochloric Acid (37% Concentration)	Fail	
	Household bleach (100% Concentration)	Fail	

All test results provided by independent third-party testing laboratories located in USA.

WARNING: These garments and associated materials are not suitable for use in some environments containing chemicals and/or hazardous agents. It is the responsibility of the user to determine the level of risk in a particular environment and the proper personal protection equipment needed. Garments manufactured from synthetic non-woven material may generate static electricity. Garments that contain an anti-stat treatment are not intended to be used as a safety feature. These garments are not recommended to be used in a flammable and or explosive environment. Contact VWR International for garment/fabric safety data. The application of these products is out of VWR International's control. Therefore, VWR International, LLC makes no warranties, expressed or implied, and assumes no liability as to the performance of these products for a particular use.

Caution: Avoid heat and/or open flame.

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MATERIAL SPECIFICATION

Item		Test method	average value standard	
			average value	tolerance for average value
Weight(g/m²)		GB/T4669-1995	56.00	+/-2
Thickness(mm)		ASTM D1777	0.21	+/- 0.02
Break Tensile propertities(N)	MD	ASTM D5034	>90	
	CD	ASTM D5034	>90	
Elongation rate(%)	MD	ASTM D5034	>50	
	CD	ASTM D5034	>50	
Trapezoid tearing strenth(N)	MD	FZ/T01085-1999	>300	
	CD	FZ/T01085-1999	>300	
Ball Burst strenth(N)		ASTM D3787	>90	
Water vapor tranmission(g/24h.sqm)		Q/FS-JS01 31-2004	>1800	
ESD		GB/T12703-91	E11	

QUALITY ASSURANCE CRITERIA:

AQL 1,5 per General Inspection Plan level II, single sampling (ANSI/ASQC Z1.4-1993)

A. **Extraneous material**
B. **Dirty products**
C. **Thread ends loose or too long**
D. **Holes or tears**
E. **Foul odor**
F. **Off colour**
G. **Uneven material thickness**
H. **Hard lump**
I. **Fibre spinning-hook off**
J. **Wrong collar tag**
K. **Physical dimension Non-compliance**
L. **Stickes is not correct**
M. **Cloth surface applied wrongly**

QUALITY ASSURANCE CRITERIA FOR MAJOR DEFECTS:

AQL 2.5 per General Inspection Plan Level II, single sampling (ANSI/ASQC Z1.4-1993)

A. **Sewing sundries**
B. **Elastic band end exposed**
C. **Sewing end falling-off**
D. **Jumping stitch**
E. **Missing stitch**
F. **Less than 8 stiches per inch**
G. **Unwanted folds**
H. **Elastic tightness non-consistent**