



TECH

INDUSTRIAL COVERALLS



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QSI brings you the ultimate in disposable safety clothing: Q-TECH industrial coveralls. Whether you're working with chemicals, asbestos, oil or paint, or simply in a dusty environment full of particulates, there's a Q-TECH coverall to suit you.

Q-TECH coveralls are fully certified to the relevant EN standards, giving you peace-of-mind that the garments will perform, and are made from proven quality non-woven fabric that sets the benchmark for disposable safety clothing.

Thanks to QSI's scale and lean structure, we can deliver these high-end garments at some of the most competitive prices in the marketplace, giving you the protection you need at a price you can afford.

Sizing Chart



SIZE	CHEST (CM)	HEIGHT (CM)
1 S	84-92	162-170
2 M	92-100	170-176
3 L	100-108	176-182
4 XL	108-116	182-188
5 XXL	116-124	188-194
6 XXXL	124-132	194-200

Sizes are according to EN340 standard.

Important Note

- » Garment sizes and specifications are subject to change without notice.
- » QSI makes no guarantee of results and it is the user's responsibility to determine the level of hazard risk and the proper personal protective equipment needed.

FEATURES

3-piece hood gives the optimal balance of a secure fit and ease of movement.



Tight sealing zip fastens right to the edge of the garment to better fit the contours of your face.



Wide storm flap protects the zip and helps prevent dust and liquid from penetrating.



Reinforced gusset offers the right combination of strength and flexibility for ease of movement.



Elasticated waist band helps garment to comfortably fit a wide range of body shapes.



Elasticated wrist and ankle openings form a snug fit to prevent contaminants from penetrating.



MEDICAL EMERGENCY BUYERS GUIDE

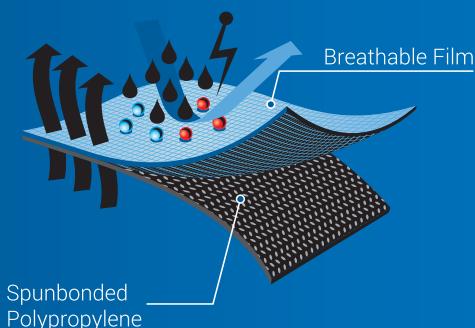
The past few decades have seen a significant rise in the instance of drug-resistant illnesses, from the SARS threat of 2003, to the H5N1 (Avian Flu) virus of 2004-2007, to the most recent outbreak of Ebola haemorrhagic fever in West Africa.

The Q-TECH 2000 is the most suitable coverall in our range to help protect health workers and medical staff from the risks of such viral infections and other biological hazards.

The Q-TECH 2000 conforms to coverall standard Type 5 & Type 6. It provides protection from light spray and splashes of liquid chemicals, as well as hazardous dusts and dry particles. Moreover, the Q-TECH 2000 meets the EN14126 Standard (protection against biological hazards and infective agents) with particularly good performance in ISO16603:2004 (synthetic blood penetration resistance) and ISO22610:2006 (wet bacteria penetration resistance).

The quality of this product has been recognised around the world by various Ministries of Health and Centres for Disease Control (CDC) who have chosen the Q-Tech 2000 as a qualified 2-series protective disposable overall.

Q-TECH 2000 achieves the highest level of class 6 protection and is recommended for front-line medical personnel.



West Africa Ebola Outbreak

The Ebola outbreak has officially been declared a global health emergency by the World Health Organisation (WHO).

WHO strongly advises ebola health-care workers should receive appropriate training, equipment (gloves and personal protective equipment [PPE]) for treatment, plus instructions on proper removal and disposal of PPE.

As the route of infection is through contact with bodily fluids, not droplet spread, health workers require protective coveralls for Ebola, much more than for SARS.

So how do you choose the appropriate protective coveralls? Here are 3 aspects to consider:

Fabric

Does the fabric offer the protection you need?

Ebola virus typically measures 920nm in length and 80nm in diameter. The micropores of the Q-TECH 2000 are approximately 80~120nm in diameter and overlap each other, which allows air to pass through while keeping pathogens out.

CE Standard

Does the garment meet the required standards?

EN 14126 is a reference standard. Q-TECH 2000 meets EN14126 (protection against biological hazards and infective agents) with the highest level of performance in 4 out of 5 tests (ISO16603:2004 and ISO22610:2006, ISO22611:2003, and ISO22612:2005) as the chart below shows.

Comfort

Will the garment be comfortable enough for your working environment?

The ideal disposable coverall offers enough protection to keep Ebola out but is porous enough to allow a certain amount of air flow. The unique fabric of the Q-TECH 2000 gives the protection you need plus the breathable comfort required when working long hours in hot climates.



Fabric Resistance to Penetration of Infective Agents	Test Method EN14126:2003	
Synthetic Blood Penetration Resistance	ISO 16603	Class 6
Blood-Borne Pathogen Penetration Resistance	ISO 16604	Class 1
Contaminated Liquid Aerosols Penetration Resistance	ISO 22611	Class 3
Contaminated Solid Particle Penetration Resistance	ISO 22612	Class 3
Wet Bacteria Penetration Resistance	ISO 22610	Class 6

COVERALL STANDARDS EXPLAINED

Industrial coveralls fall into one of three categories depending on the level of protection they provide against various hazards.

Category I Simple products. Products which are not suitable to protect against any form of hazard.

Category II Intermediate products. Products which fall into neither category I or III.

Category III Complex products. Products which are worn or held in order to protect against any hazard which may be life threatening.



TYPE 1 BS EN 943-1

Gas tight suits.

Suits which are intrinsically sealed against the environment.



TYPE 2 BS EN 943-1

Non-gas tight suits.

Suits which retain a positive internal pressure to prevent ingress of dusts, liquids or vapours.



TYPE 3 BS EN 14605

Liquid tight suits.

Suits which can protect against strong and directional jets of a liquid chemical such as spray from a burst pipe under pressure. Requires a barrier fabric and sealed seams.



TYPE 4 BS 1N 14605

Spray tight suits.

Suits which can protect against saturation of liquid chemical, where volume of the liquid builds up on the suit forming pools, resulting in rivulets. Requires a barrier fabric and sealed seams.



TYPE 5 BS EN ISO 13982-1

Dry particle suits.

Suits for protection against hazardous dusts and dry particles.



TYPE 6 BS EN 13034

Reduced spray suits.

Suits for protection against light spray and splashes of liquid chemicals where there is no direction spray or build up of liquid on the suit, but there may be a fine mist of droplets in the atmosphere.



Anti-static EN 1149-5

Electrostatic dissipative protective clothing with a surface resistance of maximum 2.5×10^9 ohm.



Radioactive contamination EN 1073-2

Protective clothing against particulate radioactive contamination.



EN 14126

Protection against biological hazards and infective agents.

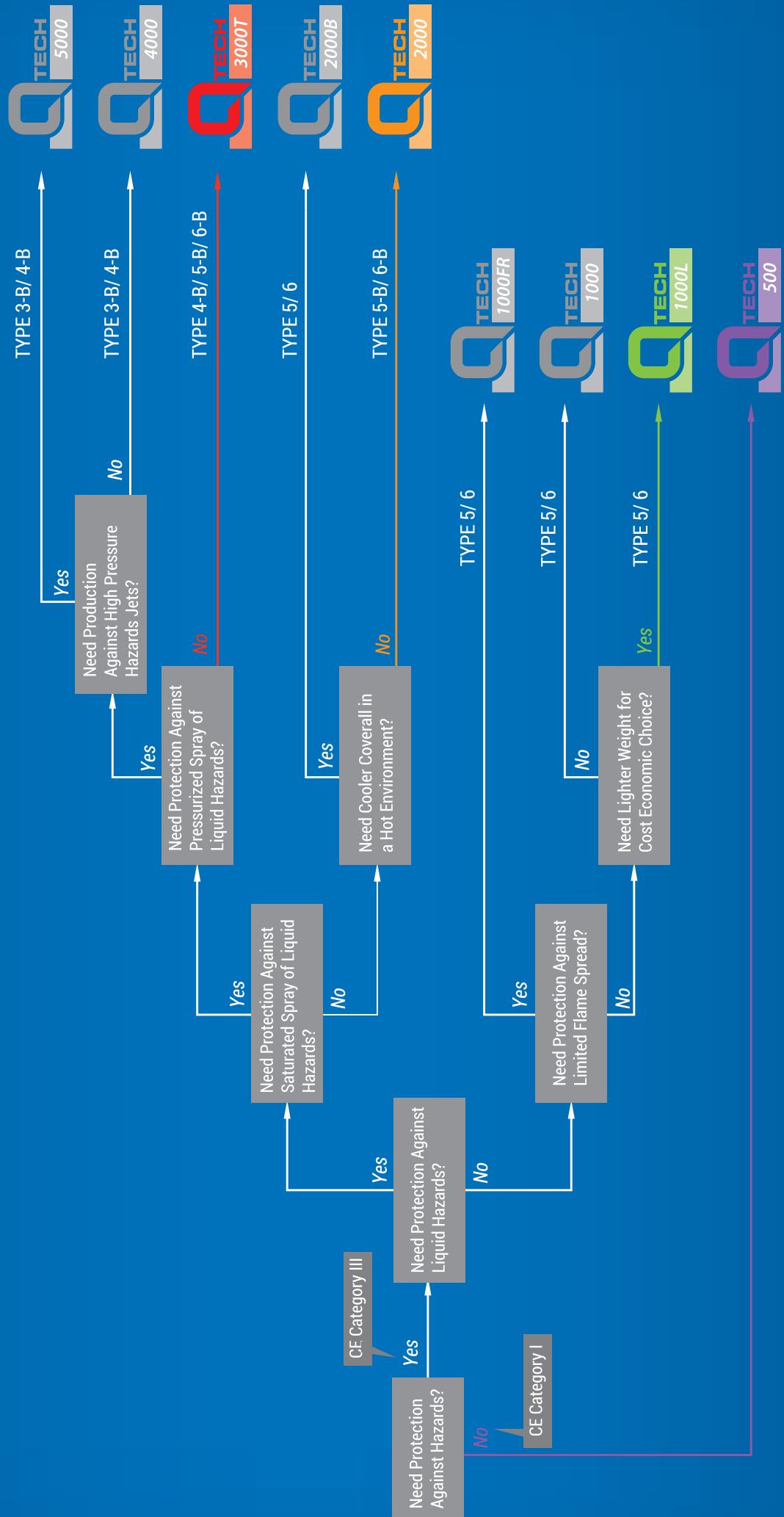


Limited flame spread protection EN ISO 14116

Limited flame spread materials, material assemblies and clothing.

PRODUCT SELECTION GUIDE

Use this chart to help choose the Q-TECH coverall that's right for you. If your needs require one of our non-standard models (shaded grey), let us know and we'll discuss your options.







Q-TECH 500 COVERALL

Features:

- » Strong, durable and comfortable
- » Individually wrapped or packaged in bulk
- » CE Category 1 overall

Applications:

- » Civil Defence
- » Construction
- » Painting and Decorating
- » Food Processing and Packaging
- » Medical and Emergency

The Q-TECH 500 is our standard disposable coverall, designed for light protection against non-toxic liquids and dust.

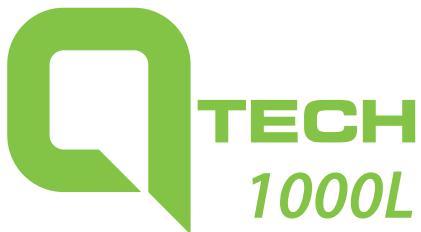




TECH

1000L





The Q-TECH 1000L (lightweight) sets a new benchmark for Type-5 and Type-6 garments: 30% lighter*, more breathable, better protection.

Q-TECH 1000L COVERALL (TYPES 5 AND 6)

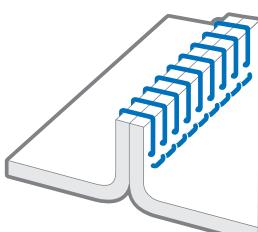
Our latest SMS fabric technology is much lighter and more breathable than other equivalent fabrics, while offering the same level of protection from hazardous particulates at an economic price. This makes it ideal for working in hotter environments.

Features:

- » Double layer PPSB improves fabric strength, tear and puncture resistance.
- » Melt blown fabric laminated between the PPSB layers provides excellent particle barrier capabilities. The fabric filters resist 99.8% of particles of size 0.5-1 μ m.
- » Passes EN1073-2 for protection against radioactive particulate contamination.
- » Passes EN1149-5 for antistatic property (by option).
- » Fully elasticated hood, ankles and wrists, to maximize comfort and protection.

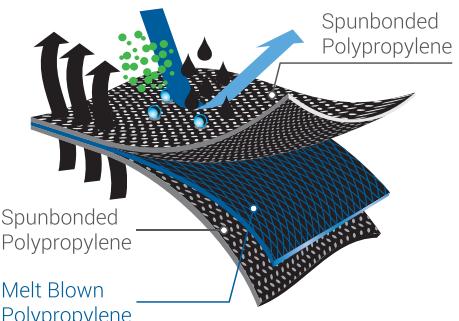
Applications:

- » Asbestos Handling
- » Automotive
- » Civil Protection
- » Construction
- » Painting and Decorating
- » Waste Management



Stitched Seam

Reinforced 4-thread overlocked seam offers stronger seam strength and better protection.



*40gsm fabric compared to 60gsm fabric of standard 1000 model.

Q-TECH 1000L CE Certificate







Q-TECH 2000 provides excellent protection from liquid chemical spray and biological hazards, while remaining breathable and comfortable.

Q-TECH 2000 COVERALL (TYPES 5-B & 6-B)

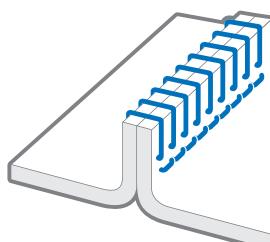
The Q-TECH 2000 provides protection from light spray and splashes of liquid chemicals, as well as hazardous dusts and dry particles. It achieves the highest level of class 6 protection and is recommended for front-line medical personnel. (See page 15 for more information on selecting coveralls for medical and biohazard situations.)

Features:

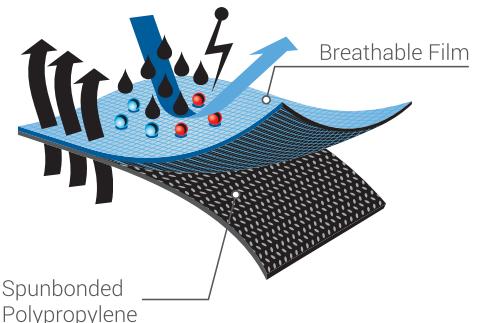
- » Chemical liquid (EN368) and blood (ASTM F1670) penetration resistance for premium protection.
- » Passes EN1149-5 for antistatic property.
- » Passes EN1073-2 for protection against radioactive particulate contamination.
- » Passes EN14126 for protection against biological hazards and infective agents (TYPE 5-B, 6-B)
- » Low linting to reduce the risk of environment contamination.

Applications:

- » Asbestos Handling
- » Agriculture and Farming
- » Automotive
- » Biological Hazards
- » Chemical Handling
- » Clean Room
- » Electronics
- » Engineering
- » Hazardous Materials
- » Military
- » Spray Painting
- » Printing



Stitched Seam
Reinforced 4-thread overlocked seam offers stronger seam strength and better protection.



Q-TECH 2000 CE Certificate







Combining our innovative Q-TECH 2000 fabric with a superior stitched and taped seam, we give you the Q-TECH 3000T.

Q-TECH 3000T COVERALL (TYPE 4-B & 5-B & 6-B)

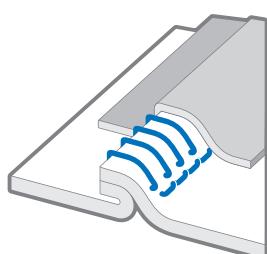
The Q-TECH 3000T uses the same breathable barrier protection fabric as the 2000 but the taped seams provide an extra level of protection from saturation of liquid chemicals, especially important in situations where liquids may pool on the garment.

Features:

- » Chemical liquid (EN368) and blood (ASTM F1670) penetration resistance for premium protection.
- » Passes EN1149-5 for antistatic property.
- » Passes EN1073-2 for protection against radioactive particulate contamination.
- » Passes EN14126 for protection against biological hazards and infective agents (TYPE 4B, 5-B, 6-B)
- » Low linting to reduce the risk of environment contamination.

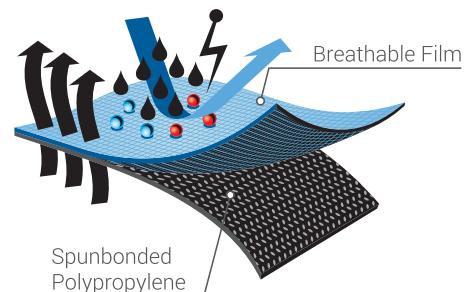
Applications:

- » Asbestos Handling
- » Automotive
- » Biological Hazards
- » Chemical Handling
- » Clean Room
- » Decontamination
- » Disaster Management
- » Hazardous Material
- » Industrial Cleanup
- » Medical/Emergency
- » Military
- » Oil Handling/Tank Cleaning
- » Spray Painting



Stitched with Tape Seam

Stitched with chemical barrier tape seam for a higher barrier to particulate and liquid splashes.



Q-TECH 3000T CE Certificate



Q-TECH 1000L PRODUCT COMPARISON CHART

Use this chart to compare the Q-TECH 1000L industrial coverall with market equivalent products from other manufacturers to help you choose the garment that's right for you.

This symbol indicates where the Q-TECH 1000L achieves the highest level of performance among its direct competitors.



Data Sources

Testing results for the Q-TECH 1000L come from the independent testing laboratory, SGS, in the UK.

Test data of other brands has been sourced from the following websites:

- » 3M 4515: http://multimedia.3m.com/mws/microsites/mediawebserver?mwsid=SSSSSurfSevTsxtUSx_Z58_xevUqevTSevTSevTSesSSSSS-&fn=3ps1202_TDSsheets_4515_US_HR.pdf
- » DuPont ProShield 10: http://www2.dupont.com/Personal_Protection/en_GB/assets/PDF/IFU_ProShield_10.pdf
- » Kimberly-Clark KleenGuard A20: <http://www.kcpprofessional.co.uk/media/39369477cds-kleenguard-a20-breathable-particle-protection-coverall-9710-9715-v1-en.pdf>
- » Microgard 1500 PLUS: <http://www.microgard.com/product2.asp?ProdID=2>
- » Lakeland Safegard 76: http://global.lakeland.com/uktech_data_safegard.pdf

QSI makes no guarantee as to the accuracy or reliability of this data and provides this information solely for reference purposes.
QSI makes no claims as to the efficacy or otherwise of other companies' products.



Fabric Physical Properties	Test Method	Result	Class	Result	Class	Result	Class	Result	Class	Result	Class
Abrasion Resistance	EN530	>100	2	Pass	1	Pass	2	Pass	2	>100	2
Flex Cracking Resistance	ISO 7854-B	>40,000	5	Pass	2	Pass	6	Pass	6	100,000	6
Trapezoidal Tear Resistance	MD EN ISO9673-4	44.2N	3	Pass	1	Pass	2	Pass	1	31.1N	2
CD	CD	19.0N	1	Pass	1	Pass	2	Pass	1	23.8N	2
Tensile Strength	MD ISO 13934-1	113.5N	3	Pass	1	Pass	1	Pass	1	77.9N	1
CD	CD	44.5N	1	Pass	1	Pass	1	Pass	1	49.2N	1
Resistance to Ignition	EN13274-4	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Puncture Resistance	EN863	9.7N	1	Pass	1	Pass	1	Pass	1	9.6N	1
Seam Strength	ISO13935-2	133.0N	4	Pass	3	>50N	2	Pass	3	117.7N	3
Against radioactive particulates	EN1073-2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Antistaticity	EN1148-5	6.2	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
pH value	EN ISO 3071	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Fabric Physical Properties	Test Method	Penetration	Repellency								
Resistance to Chemical Penetration	EN368	Pass	Pass								
Sulphuric Acid 30%	Class 3	Class 3	Pass								
Sodium Hydroxide 10%	Class 3	Class 3	Pass	Class 3	Pass	Class 2	Pass	Class 3	Pass	Class 3	Pass

Q-TECH 1000L	3M Protective Coverall 4515	DuPont ProShield® 10	KleenGuard A20	Microgard 1500 PLUS	Lakeland Safegard 76





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This symbol indicates where the Q-TECH 2000 achieves the highest level of performance among its direct competitors.

Data Sources

Testing results for the Q-TECH 2000 come from the independent testing laboratory, SGs, in the UK. Test data of other brands has been sourced from the following websites:

- » 3M 4545: http://multimedia.3m.com/mws/media/webserver?hwid=SSSUSSev7sxtU5x_Z58GeVUqvTSevTSevTSevSSSSSS-&fn=3ps1202_TDSsheets_4545_US_LR0813
- » DuPont Tyvek Classic: http://phoenix.dpt-europe.com/MG/pdf/IFU_Tyvek_Classic.pdf
- » DuPont Tyvek Classic Xpert: http://www2.dupont.com/Personal_Protection/en_GB/assets/PDF/IFU_Xpert.pdf
- » Kimberly-Clark KleenGuard A40: <http://www.kcpprofessional.co.uk/media/4525312/product-information-kleenGuard-apparel-selector-v1-en.pdf>
- » Microgard 2000 Standard: <http://www.microgard.com/product/6.asp?MYID=16>
- » Lakeland MicroMax NS: http://global.lakeland.com/uk/tech_data_micromaxns.pdf

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		Q-TECH 2000		3M		DuPont		Tyvek. Classic		KleenGuard® A40		Microgard		Lakeland		MicroMax NS	
Fabric Physical Properties	Test Method	Result	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result	Class	Result	Class
Abrasion Resistance	EN530	>100 cycles	2	1	2	>100 cycles	2	6	6	100 cycles	2	6	100 cycles	2	>10-100	1	
Flex Cracking Resistance	ISO 7854-B	>40,000 cycles	5	3	3	>100,000 cycles	6	4	4	40,000 cycles	5	5	>15k<40k	4			
Trapezoidal Tear Resistance	EN ISO9073-4	40.7N	3	1	1	>10N	1	2	2	>10N	1	2	40.6N	3			
CD	MD	18.6N	1	1	1	>10N	1	2	2	18.6N	1	2	18.6N	1			
Tensile Strength	ISO 13934-1	108.1N	3	1	1	>60N	2	2	2	108.1N	3	2	108.1N	3			
CD	CD	48.3N	1	1	1	>60N	2	2	2	48.3N	1	2	48.3N	1			
Inflammability	EN13274-4	Pass	2	1	Pass					Pass			Pass				
Puncture Resistance	EN863	6.95N	1	1	2	>10N	2	2	2	8.2N	1	2	8.2N	1	6.2N	1	
Seam Strength	ISO13935-2	120.2N	3	1	2	>75N	3	3	3	111N	3	3	88.8N	3			
Burst Resistance	ISO 13938-1	184.1kPa	3	1	1	>80kPa	3	3	3	184.1kPa	3	3	50.9	1			
Antistaticity	EN1149-5	Pass	1	Pass	1	Pass	1	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
Radioactive particulates test	EN1073-22	Pass	1	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	
Fabric Physical Properties	Test Method	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	Repellency	Penetration	
Resistance to Chemical Penetration	EN368	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Sulphuric Acid 30%		Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Sodium Hydroxide 10%		Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Iso propanol		Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Fabric Resistance to Penetration of Infective Agents	EN14126:2003																
Synthetic Blood Penetration Resistance	ISO 16603	Class 6	J	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 6	
Blood-Borne Pathogen Penetration Resistance	ISO 16604	Class 1		Class 0	Class 0											Class 6	
Contaminated Liquid Aerosols Penetration Resistance	ISO 22611	Class 3	J	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Contaminated Solid Particle Penetration Resistance	ISO 22612	Class 3	J	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	Class 3	
Wet Bacteria Penetration Resistance	ISO 22610	Class 6	J	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	Class 6	

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