



MICROGARD® Fabric Performance

Microgard 1500*	M2000 Comfort***	M2000**** Plus	Microgard 2500 Plus	Microchem 3000	Microchem 4000	Microgard FR	Microgard CFR
SMS	Microporous PE Laminate	Microporous PE Laminate	Microporous PP Laminate	Spunbond PP-with barrier film	5 Layer laminate	50% FR Treated Sontara, 5% woodpulp, 45% polyester with addition of Fluro-chemical	50% FR Treated Sontara, 5% woodpulp, 45% polyester with PVC Barrier film
EN14325 FABRIC PHYSICAL TESTS							
EN 530 Abrasion	10	100	100	500	2000		
EN ISO 7854 Flex Cracking	15,000	40,000	40,000	100,000	100,000	>100,000	>5,000
EN ISO 9073-4 Tear Resistance (MD)	22.6N	15N	43.1N	44N	142.4N	29.6N	21.4N
EN ISO 9073-4 Tear Resistance (CD)	28.8N	30N	35.7N	29N	105.4N	36.6N	25N
EN ISO 13934-1 Tensile Strength (MD)	>100N	77N	108.1N	122.8N	172N		
EN ISO 13934-1 Tensile Strength (CD)	>55N	44N	113.5N	62N	84N		
EN 863 Puncture Resistance	9.87N	7.2N	15.23N	10N	16N	13.18N	14.64N
EN ISO 13938-1 Burst Resistance		>100kPa	110.7kPa	90kPa	379kPa	160kPa	252kPa
EN 13274-4 Resistance to ignition	Pass	Pass	Pass	Pass	Pass	Pass	Pass
EN 1149-1 Anti-static	Pass**	Pass	Pass	Pass	Pass	Pass	Pass
B5 EN 20811 Hydrostatic Head (water pressure test)	>100cm	232cm	>250cm	356cm	>692cm	>100cm	>100cm
EN533 Limited Flame Retardancy						Index 1/0	Index 1/0
ISO 6530 Repellency to Liquids – 30% Sulphuric Acid	99.1%	96.0%	99.30%	98.00%	93.4%	95.2%	
ISO 6530 Repellency to Liquids – 10% Sodium Hydroxide	97.5%	95.6%	96.30%	97.70%	93.0%		
ISO 6530 Repellency to Liquids – n-heptane (undiluted)	0.0%	98.3%	87.20%	92.20%	91.0%		
ISO 6530 Repellency to Liquids – Isopropanol	23.1%	91.9%	91.70%	79.10%	90.7%		
ISO 6530 Resistance to penetration by liquids – 30% Sulphuric Acid	0.0%	0.0%	0.0%	0%	0%	1.15%	
ISO 6530 Resistance to penetration by liquids – 10% Sodium Hydroxide	0.0%	0.0%	0.0%	0%	0%		
ISO 6530 Resistance to penetration by liquids – n-heptane (undiluted)	26.6%	0.0%	0.0%	0%	0%		
ISO 6530 Resistance to penetration by liquids – Isopropanol	19.5%	0.0%	0%	0%	0%		
ALOXITE PARTICLE PENETRATION TEST (FABRIC) FILTRATION EFFICIENCY %							
Particle Size 1.0 – 1.5µm	98.3%	>99%					
Particle Size 1.5 – 2.0µm	98.6%	>99%					
Particle Size 2.0 – 2.5µm	99.2%	>99%					
Particle Size 2.5 – 3.0µm	99.5%	>99%					
Particle Size 3.0 – 3.5µm	99.7%	>99%					
Particle Size >3.5µm	99.8%	100%					
EN ISO 6629/EN374-3 PERMEATION TEST – NBT 1.0µm/cm*****							
Acetone			Immediate	21	>480mins		
Acetonitrile			Immediate	5	>480mins		
Ammonia (anhydrous), 99.99%			Immediate	2	2mins		
Carbon Disulfide			5	Immediate	Immediate		
Chlorine Gas, 99.5%			Immediate	Immediate	>480mins		
Dichloromethane			Immediate	Immediate	12mins		
Diethylamine			Immediate	Immediate	4mins		
Ethyl Acetate			Immediate	2	>480mins		
n-Hexane			Immediate	>480	>480mins		
Hydrochloric Acid 36%			Immediate	>480	>480mins		>480mins
Hydrogen Chloride, 99.0%			Immediate	>480	>480mins		
Methanol		>480mins	Immediate	>480	>480mins		
Sodium Hydroxide, 30%			>480	>480	>480mins		16mins
Sulfuric Acid 96 %			>480	>480	>480mins		
Tetrahydrofuran			Immediate	Immediate	19mins		
Toluene			Immediate	3	>480mins		
EN14126 BARRIER TO INFECTIVE AGENTS							
ISO 16603 Resistance to penetration by blood/liquids under pressure		Class 6 of 6	Class 6 of 6	Class 6 of 6	Class 6 of 6		
ISO 16604 Resistance to penetration by blood borne pathogens		Class 6 of 6	Class 6 of 6	Class 6 of 6	Class 6 of 6		
EN ISO 22610 Resistance to wet bacterial penetration (mechanical contact)		Class 6 of 6	Class 6 of 6	Class 6 of 6	Class 6 of 6		
ISO/DIS 22611 Resistance to biologically contaminated aerosols		Class 3 of 3	Class 3 of 3	Class 3 of 3	Class 3 of 3		
ISO 22612 Resistance to dry microbial penetration		Class 3 of 3	Class 3 of 3	Class 3 of 3	Class 3 of 3		

*Results shown relate to 50gsm SMS. Contact Microgard Ltd for performance of 60gsm SMS fabric used in M1500 Standard product.
**Pass applies to WH15 & BL15 Microgard 1500 Standard. Contact Microgard Ltd for details.
***Fabric results for Microporous fabric which covers at least 85% of the product. Refer to M1500 results for back panel fabric performance
****Fabric results for white. For Green results please visit www.microgard.com
*****Permeation results recorded at 0.1µm/cm2 for M2500 Plus fabric
All chemical breakthrough times quoted relate to laboratory tests on fabrics only. Seams and closures may have lower breakthrough times
– particularly when worn or damaged. The final determination of suitability is the user's responsibility.