



WIPERS

Micro-denier Clean Wipers Heat Sealed Edge WW-4000 Series

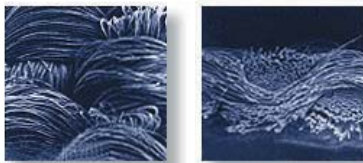


KM Micro-denier is made of 0.13 denier of continuous filament that ensures unparalleled wiping ability with high absorbency and cleanliness. With ultra-fine structure of its fabric, the fabric of KM Micro-denier provides wide contact to surface so that contaminants on the surface are removed effectively. This fabric also provides more room between fibers, so absorption capacity is increased more than twice than other cleanroom polyester wipers.

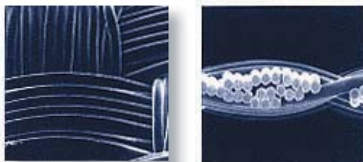


WW-4009

- Micro-filament provides better contact to surface
- Laundered and packaged in the class 10 cleanroom
- Sealed edges prevent particle or lint generation
- Ultra-fine fabric structure increase absorbency capacity
- Applications: Class 10 cleanroom for Semiconductor, LCD and HDD manufacturing



Micro-denier Fabric, Magnified



Polyester Fabric, Magnified

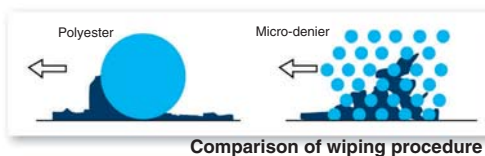
How to order

Code	Size	Description	Packing Unit
WW-4006	6" x 6"		
WW-4009	9" x 9"		
WW-4006HK	6" x 6"	Heat Sealed Edges / Stacking	100 pcs / 10 bags
WW-4009HK			
WW-4009UM	9" x 9"		
WW-4009TM			

※ HK:High-density Knit

Technical Data

Contents	Specifications				
	WW-4009	WW-4009HK	WW-4009UM	WW-4009TM	
Contamination Control					
Particle Count (0.5 μ m, ea/m ²) ($\geq 0.3\mu$ m, ea)	Liquid Particle Count (per m ²)	0.4 x10 ⁶	0.4 x10 ⁶	0.6 x10 ⁶	0.6 x10 ⁶
	Air Borne Particle (per ft ³)	≤ 40	≤ 40	≤ 50	≤ 75
	Lint (>100 μ m, EA/Sh)	≤ 20	≤ 20	≤ 30	≤ 45
NVR (g/m ²)	DI Water	0.02	0.02	0.02	0.02
	IPA	0.1	0.1	0.1	0.1
Extractable Ions (ppm)	Na	0.2	0.013	0.132	0.049
	K	0.02	1.23	0.016	0.017
	Cl	0.13	0.01	0.065	0.019
	NO ₂	0.01	0.01	0	0
General Characteristics					
Weight (g/m ²)		96 \pm 10	210 \pm 21	200 \pm 20	200 \pm 20
Absorbency	Capacity (ml/m ²)	≥ 120	≥ 350	≥ 220	≥ 220
	Capacity (ml/g)	1.25	1.67	1.09	1.09
Time to sorption	(sec/6 σ)	≤ 10	≤ 10	≤ 30	≤ 30
Tensile strength (kg.f/cm ²)	MD (Machine Direction)	≥ 400	≥ 300	≥ 400	≥ 400
	CD (Cross Direction)	≥ 400	≥ 150	≥ 400	≥ 400
Thickness (μ m)		200 \pm 20	470 \pm 20	420 \pm 20	420 \pm 20



Comparison of wiping procedure