

Standard nonwoven wiper with superior absorbency

ABSORMAT™ wipers feature outstanding absorbency and moderate particle generation. That is why they can be recommended for use in less critical areas in cleanrooms.

A blend of 52% cellulose and 48% polyester fibres, ABSORMAT™ is not very well suited for wiping rough surfaces because the cellulose fibres are too soft. However, wet or dry, the wiper resists mechanical tearing forces in both directions comparatively well and contains only a relatively small quantity of heavy metal ions. Due to the wiper's overall positive evaluation, it has become a standard wiping cloth in laboratories and cleanrooms involved in semiconductor manufacturing and in the pharmaceutical sector. For critical cleaning processes, however, special wipers made of knitted materials should be used. Due to their high tensile strength, ABSORMAT™ nonwoven cloths are often used instead of wipers made of nonwoven cotton or those made of pure cellulose without any polyester content.

Characteristics

nonwoven made from 52% cellulose and 48% polyester, interfolded for use in dispenser boxes

Features

excellent absorbency, high tensile strength, average particle release

Application

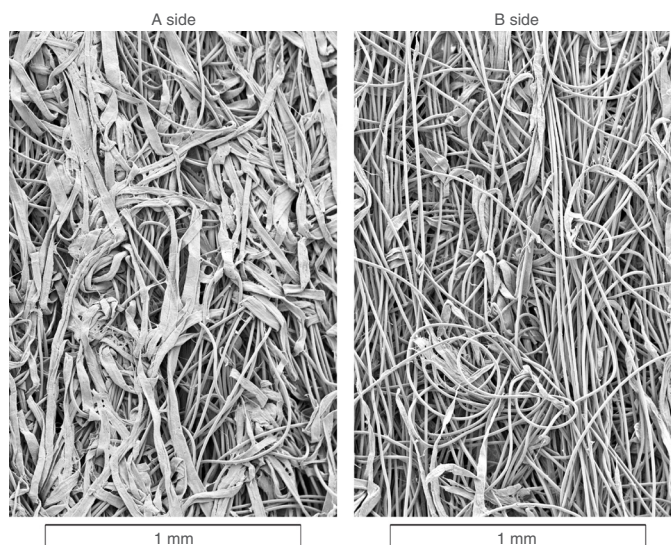
the standard wiper for all cleaning processes in cleanrooms, laboratories, semiconductor and pharmaceutical industry

General technical specification

Textile construction	nonwoven
Mesh / cm ²	-
Cutting	mechanically
Treatment	none
Decontaminated	no
Washable	no
Sterilisable	possible
Stat. Quality control	yes

ATTENTION: When checking the particle release of this cloth by hand in the trowel condition, it must be noted that the A-side (pulp side) yields more particles than the B side (polyester side). This is due to construction. Both particle values must be recorded.

The image on the right taken with a scanning electron microscope (SEM) clearly shows the two different fibres used in manufacturing this nonwoven material. The round polyester fibres shown in the cross section give the wiper its high tensile strength, and the rough, unevenly structured fibre of the cellulose absorbs large amounts of liquid relatively fast. The nonwoven cloth is given its ultimate structure by subjecting it to water-jet bonding. In this method, a web of selected fibres on a transport belt is subjected to spray of water from ultra-thin water jets under high pressure, thus bonding the fibres together. The SEM image also reveals very clearly that there is no residue of chemical bonding agents on the fibres which could impair the purity of the nonwoven material.



SEM images Yuko Labuda

General technical data			
Mechanical parameters	Value	Unit	After method
Thickness	0.35	mm	ISO 9073-2
Surface weight	70	g/m ²	ISO 9073-1
Break load dry, longitudinal direction	231	N	ISO 9073-3
Break load dry, lateral direction	47	N	ISO 9073-3
Elongation at break, longitudinal direction	11.8	mm	ISO 9073-3
Elongation at break, lateral direction	89.7	mm	ISO 9073-3
Particle release data	Value	Unit	After method
Cleaning efficiency after Labuda measured with MULTIDRAW KTL N 16 oil	72.2	%	C&C-W-RE
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 5 µm	6.6	k-Part/cm ²	C&C-W-PF-S
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 39 µm	10.9	k-Part/cm ²	C&C-W-PF-S
Air particle release (at 40% relH) by Labuda Fulling Simulator Mk1	785 / 540 (Side A / B)	Part 0.5 µm/ min	
Cleanroom class according to ISO 14644-1	Cleanroom consumables cannot be specified for air purity classes		
Water absorption (DI water)	Value	Unit	After method
Total	361	g/m ²	-
Average absorption rate in 5 s	0.21	g	C&C-W-AK-R
Average absorption rate in 60 s	0.41	g	C&C-W-AK-R
Drop absorption time	510 / 520	ms	C&C-W-EZ
Liquid residue after wet wiping	4	%	C&C-W-RF
Chemical resistance	Value	Unit	After method
Charge of break-load (long) after 2.5 min immersion into various solvents			
Dry	231	N	C&C-W-CF
Water	-17	%	C&C-W-CF
Isopropyl	-2	%	C&C-W-CF
Acetone	-19	%	C&C-W-CF

Triboelectricity at 40% relH and room temperature	Value (Side A / B)	Unit	After method
Charge at 17 s	35.1 / 29.3	kV/m	CC-W-TE
Charge at 17 s at 60 s	2.5 / 2.1	kV/m	CC-W-TE
Discharge after 60 s	92.9 / 92.9	%	CC-W-TE

Anion and cation inventory in ppm measurement with capillary electrophoresis

Chloride	Fluoride	Nitrate	Nitrite	Phosphate	Sulphate		
2.446	0.277	0.183	0.161	-	1.488		
Ammonium	Barium	Calcium	Potassium	Lithium	Magnesium	Sodium	Strontium
0.258	-	1.466	0.226	-	0.14	2.487	-

All data in this sheet are based on measurements taken at the time of their issuance. The publication of this document does not constitute a guarantee for the continued compliance with these data. On request, you will receive current data and tolerance limits from our laboratory. Subject to change without prior notice. Errors and omissions excepted. Clear & Clean is a company certified according to the EN ISO 9001: 2008 standard. The quality assurance measures are described in our quality manual. When the data contained in this data sheet are changed, no automatic alteration is made. Clean room consumable products cannot be classified according to a clean room class for air purity according to ISO-14644-1.

Order and packing information / single packs ABSORMAT™

Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC448G	25 x 22	Inter	150	50	7500	30.0	80 x 60 x 35
CC456E	25 x 44	M	100	45	4500	36.0	80 x 60 x 45
CC456P-st	25 x 44	M	50	40	2000	17.0	80 x 60 x 45

Order and packing information / Meisterboxen ABSORMAT™

Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC6448-01	25 x 22	Inter	250	24	6000	28.0	80 x 60 x 36
CC6448-02	25 x 22	Inter	185	8	1440	8.0	60 x 30 x 30
CC6456-01	25 x 24	M	130	24	3120	29.0	80 x 60 x 36