

Nonwoven wiper made of long natural fibres – low particle shedding

Made in Germany

This thin Clear & Clean special nonwoven made from particularly long natural fibres is known for its extremely high water absorbency rate. It is mainly used for hand drying in critical environments (such as in an OP or a cleanroom) or for removing liquid residues in the laboratory. However, another important application is to separate large quantities of thin glass, silicon chips, ceramic substrates and all plate-shaped products which just do not lie directly on top of each other during transport or during the manufacturing process. Particularly for this function, the material is often shaped and sized to in some way match the pieces that are to be separated. For quantities exceeding 100 000 pieces we offer to manufacture the required forms according to our dimension drawings, and to deliver them in suitable packaging. Because this nonwoven material does not contain any relevant substances other than natural fibres, it is an ecological product of choice.

The image on the right, taken with our scanning electron microscope, shows the extremely long fibres lying topsy-turvy over each other. In cross section they have the typical round to oval form and are loosely and airily connected with each other via small quantities of pulp. Thus, the high tensile strength is mainly determined by the fibre itself. A comparison shows that ABSORMAT®, our standard nonwoven cleaning cloth made of 40% polyester / 60% cellulose, is three times as thick but only twice as tear resistant. This speaks for the high quality of the DRYTECH™ natural fibres.

## Characteristics

binder free nonwoven from 100% natural fibres, interfolded for use in dispenser boxes

## Features

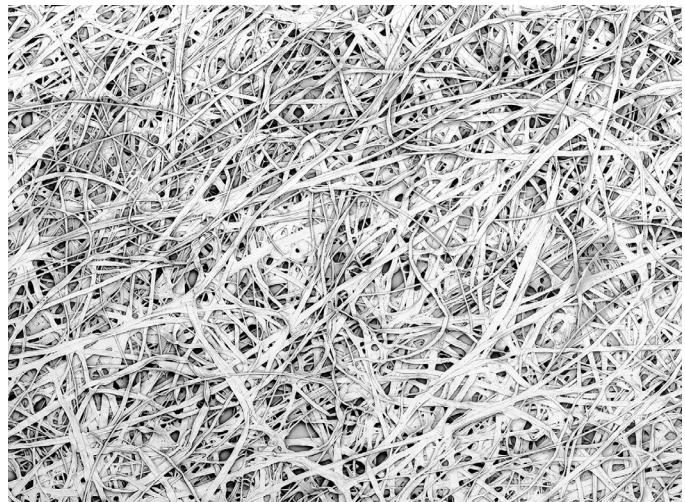
excellent absorption speed, average particle release

## Application

as cleaning and wipe dry cloth for common cleaning tasks and as separator layer

## General technical specification

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



SEM photo Yuko Labuda, image width 3 mm

<b>General technical data</b>			
<b>Mechanical parameters</b>	<b>Value</b>	<b>Unit</b>	<b>After method</b>
Thickness	0.11	mm	ISO 9073-2
Surface weight	23	g/m <sup>2</sup>	ISO 9073-1
Break load dry, longitudinal direction	51	N	ISO 9073-3
Break load dry, lateral direction	36	N	ISO 9073-3
Elongation at break, longitudinal direction	2.05	mm	ISO 9073-3
Elongation at break, lateral direction	2.61	mm	ISO 9073-3
<b>Particle release data</b>	<b>Value</b>	<b>Unit</b>	<b>After method</b>
Labuda-Cleaning efficacy based on oil type MULTIDRAW KTL N 16	72.3	%	C&C-W-RE
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 5 µm	4.0	k-Part/cm <sup>2</sup>	C&C-W-PF-S
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 39 µm	11.4	k-Part/cm <sup>2</sup>	C&C-W-PF-S
Air particle release (at 40% relH) by Labuda Fulling Simulator Mk1	1104	Part 0.5 µm/ min	
Cleanroom class according to ISO 14644-1	Cleanroom consumables cannot be specified for air purity classes (see VDI 2083 - sheet 9.2).		
<b>Water absorption (DI water)</b>	<b>Value</b>	<b>Unit</b>	<b>After method</b>
Total	108	g/m <sup>2</sup>	
Average absorption rate in 5 s	0.18	g	C&C-W-AK-R
Average absorption rate in 60 s	0.28	g	C&C-W-AK-R
Drop absorption time	681	ms	C&C-W-EZ
DI-Water after wet wiping	19	%	C&C-W-RF
<b>Chemical resistance</b>	<b>Value</b>	<b>Unit</b>	<b>After method</b>
Charge of break-load (long) after 2.5 min immersion into various solvents			
Dry	51	N	C&C-W-CF
Water	-76	%	C&C-W-CF
Isopropyl	-11	%	C&C-W-CF
Acetone	-15	%	C&C-W-CF

<b>Triboelectricity</b> at 40% relH and room temperature	<b>Value</b>	<b>Unit</b>	<b>After method</b>
Discharge after 60 s	67.9	%	CC-W-TE

<b>Anion and cation inventory in ppm</b> measurement with capillary electrophoresis							
Chloride	Fluoride	Nitrate	Nitrite	Phosphate	Sulphate		
0.376	0.47	0.3781	-	0.05	3.065		
Ammonium	Barium	Calcium	Potassium	Lithium	Magnesium	Sodium	Strontium
0.048	-	0.416	0.194	-	0.139	3.209	-

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 : 2015 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.

<b>Order and packing information / standard DRYTECH™</b>							
Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC473	25 x 22	Inter	320	100	32000	42.0	80 x 60 x 45

<b>Order and packing information / special formats in roll form DRYTECH™</b>							
Type	Roll width in cm	Running length in m	Core diameter in mm	Rolls per carton	Weight per roll in kg	Dimensions p. carton in cm	
CC475RL	19.8	700	76	12	3.4	80 x 60 x 45	