

Polyamide nonwoven wiper for cleaning structured surfaces

Made in Germany

This high-strength, relatively thick nonwoven wiping cloth with its structured, thermo-bonded surface is especially suitable for wiping up coarse pollutants in the high-tech environment. It is used for tasks, where surfaces with increased roughness height or encrusted deposits need to be cleaned. Moreover, it is suitable both for wiping up pasty contaminants such as mixtures of coarse dust and oil and for absorbing relatively large quantities of liquid. Due to the thermo-bonding imprints in the body of the fibre, which are arranged in a pattern with an imprint width of 300 µm at intervals of 850 µm over the entire nonwoven cloth, the fibre breaks could be reduced, which normally occur during the wiping process on non thermo-bonded surfaces. The nonwoven cloth is also suited to cleaning plasma etching machines and to floor cleaning. Despite the high Water absorption rate per surface unit, this wiper is not especially suited as a dry nonwoven wiping cloth due to the increased liquid residue left on the surface after wiping. Its resistance to abrasion, by contrast, remains almost unmatched.

Our SEM image shows the cushion-like bulges, which push forward and bind the pollutant mass in front of them during the cleaning process. At the same time the thermo-bonding is visible: It anchors loose fibres at short distances from each other so that even with relatively high friction forces during the cleaning process, they cannot be torn out of the body of the nonwoven fabric. This tensile strength proves especially beneficial when cleaning structured surfaces. According to the Labuda bowl method, this nonwoven cloth has far more favourable particle release values than the same wiping cloth made of a polyester/cellulose blend.

Characteristics

abrasion resistant nonwoven, flat packs in various sizes

Features

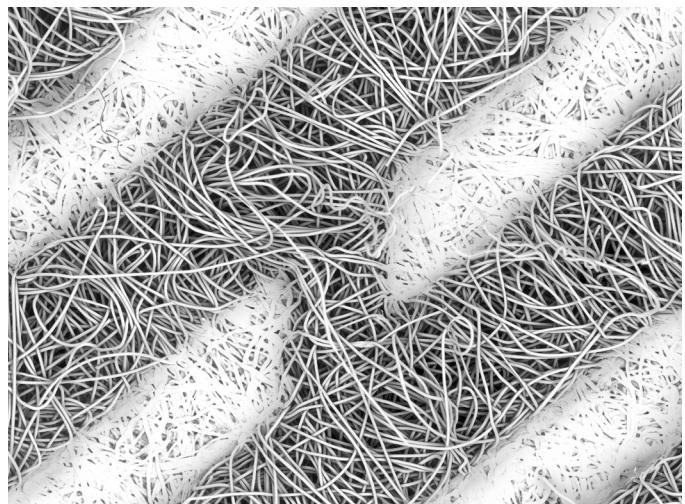
structured, thermobonded surface, high tensile strength

Application

for coarse soils like greases and paste for the cleaning of machinery and perforated cleanroom floors

General technical specification

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



SEM photo Yuko Labuda, image width 3 mm

General technical data			
Mechanical parameters	Value	Unit	After method
Thickness	0.63	mm	ISO 9073-2
Surface weight	119.5	g/m ²	ISO 9073-1
Break load dry, longitudinal direction	184	N	ISO 9073-3
Break load dry, lateral direction	277	N	ISO 9073-3
Elongation at break, longitudinal direction	54.2	mm	ISO 9073-3
Elongation at break, lateral direction	39.8	mm	ISO 9073-3
Particle release data	Value	Unit	After method
Labuda-Cleaning efficacy based on oil type MULTIDRAW KTL N 16	35	%	C&C-W-RE
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 5 µm	7.20	k-Part/cm ²	C&C-W-PF-S
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 39 µm	7.36	k-Part/cm ²	C&C-W-PF-S
Air particle release (at 40% relH) by Labuda Fulling Simulator Mk1	186	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).		
Water absorption (DI water)	Value	Unit	After method
Total	331.7	g/m ²	
Average absorption rate in 5 s	0.23	g	C&C-W-AK-R
Average absorption rate in 60 s	0.39	g	C&C-W-AK-R
Drop absorption time	154 / 152	ms	C&C-W-EZ
DI-Water after wet wiping	8	%	C&C-W-RF
Chemical resistance	Value	Unit	After method
Charge of break-load (long) after 2.5 min immersion into various solvents			
Dry	184	N	C&C-W-CF
Water	-25	%	C&C-W-CF
Isopropyl	-17	%	C&C-W-CF
Acetone	+1	%	C&C-W-CF

Triboelectricity at 40% relH and room temperature	Value	Unit	After method
Discharge after 60 s	94.7	%	CC-W-TE

Anion and cation inventory in ppm measurement with capillary electrophoresis							
Chloride	Fluoride	Nitrate	Nitrite	Phosphate	Sulphate		
0.457	0.3	0.133	0.154	0.819	0.129		
Ammonium	Barium	Calcium	Potassium	Lithium	Magnesium	Sodium	Strontium
0.073	-	0.053	6.042	-	0.028	2.458	-

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.

Order and packing information / single packs LABOCLEAR®							
Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC492	20 x 20	none	50	100	5000	32.0	80 x 60 x 36
CC493	25 x 25	none	50	50	2500	18.5	80 x 60 x 36
CC494	30 x 60	none	50	25	1250	26.0	80 x 60 x 45
CC495	75 x 80	none	50	8	400	32	48 x 29 x 29