

MICROWEB™ HDMH

**CLEAR
CLEAN**

Version H – with superior fluid absorption

Wiper for precision cleaning of plane surfaces

MICROWEB™ HDMH is a high-quality cleaning cloth made of polymer bicomponent yarn, which contains micro-fine matrix filaments. It provides optimal cleaning efficiency for the removal of ultra-thin grease layers and submicron particles from plane surfaces. In comparison to the MICROWEB™ UDG EC, it has considerably higher liquid absorbency. This characteristic also suits MICROWEB™ HDMH for the treatment with solvents. A multistage decontamination process during production ensures that the particulate and chemical contaminants of the raw knitted material from the textile manufacturing processes are largely eliminated. In a downstream process step, the cloth obtains its ultra-thin surface structure without the individual loops losing any of their capacity to absorb liquid. Alongside these qualities, it is the soft textile surface of MICROWEB™ HDMH which distinguishes it as an ideal wiper for precision cleaning in clean manufacturing environments.

On the image on the right, taken with our scanning electron microscope, you see the surface structure of MICROWEB™ HDMH. Specifically eye-catching in comparison to other knitted cloths we fabricate, is the tensile strength of each single yarn which gives the textile the desired bulkiness. The extremely high quantity of ultra-thin fibrils results in countless contact points on the surface during the wiping process. The more papillas exists, the better thin-layered grease and particle-containing contaminants can be removed from plane surfaces. The well misted cavities between the yarn fibrils are designed to enable sufficient liquid absorption.

Characteristics

knitware from bicomponent multifilament yarn (PES/PA), laser cut edges, cleanroom decontaminated

Features

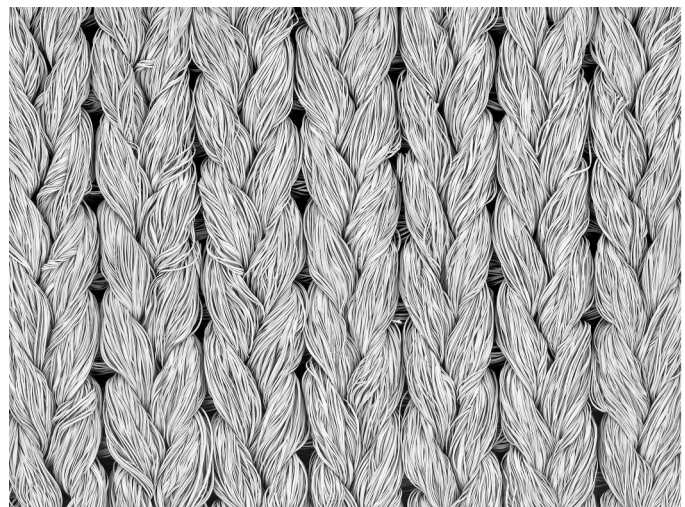
hydrophilic treatment for better absorption, soft textile for good contact on uneven surfaces

Application

for dry and wet cleaning of sensitive surfaces in industry and optics

General technical specification

Textile construction	knitware
Mesh / cm ²	700
Cutting	laser
Treatment	nonionic surfactant
Decontaminated	yes
Washable	possible
Sterilisable	possible
Stat. Quality control	yes



SEM Image Yuko Labuda

General technical data			
Mechanical parameters	Value	Unit	After method
Thickness	0.45	mm	ISO 9073-2
Surface weight	173	g/m ²	ISO 9073-1
Break load dry, longitudinal direction	502	N	ISO 9073-3
Break load dry, lateral direction	289	N	ISO 9073-3
Elongation at break, longitudinal direction	87	mm	ISO 9073-3
Elongation at break, lateral direction	171	mm	ISO 9073-3
Particle release data	Value	Unit	After method
Cleaning efficiency after Labuda measured with MULTIDRAW KTL N 16 oil	90	%	C&C-W-RE
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 5 µm	3.2	k-Part/cm ²	C&C-W-PF-S
Particle residue (Particle > 0.5 µm) after wiping on surface Rz 39 µm	6.1	k-Part/cm ²	C&C-W-PF-S
Air particle release (at 40% relH) by Labuda Fulling Simulator Mk1	69.2	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	538	g/m ²	
Average absorption rate in 5 s	0.2	g	C&C-W-AK-R
Average absorption rate in 60 s	0.33	g	C&C-W-AK-R
Drop absorption time	151	ms	C&C-W-EZ
Liquid residue after wet wiping	76	%	C&C-W-RF
Chemical resistance	Value	Unit	After method
Charge of break-load (long) after 2.5 min immersion into various solvents			
Dry	502	N	C&C-W-CF
Water	-9.2	%	C&C-W-CF
Isopropyl	+1.4	%	C&C-W-CF
Acetone	-7.6	%	C&C-W-CF

Triboelectricity at 40% relH and room temperature	Value	Unit	After method
Charge at 17 s	60.6	kV/m	CC-W-TE
Charge at 17 s at 60 s	57.7	kV/m	CC-W-TE
Discharge after 60 s	4.8	%	CC-W-TE

Anion and cation inventory in ppm measurement with capillary electrophoresis

Chloride	Fluoride	Nitrate	Nitrite	Phosphate	Sulphate		
0.3	1.755	0.073	0.063	0.207	0.042		
Ammonium	Barium	Calcium	Potassium	Lithium	Magnesium	Sodium	Strontium
0.391	-	1.681	0.063	-	0.074	0.084	-

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 MICROWEB™ HDMH

Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC125N-I-H	10 x 10	bulk pack	320	15	4800	10.5	50 x 30 x 30
CC126P-I-H	20 x 20	bulk pack	50	20	1000	7.0	50 x 30 x 30
CC128P-I-H	40 x 40	flat pack	50	10	500	16.5	51 x 51 x 22

Order and packing information / special formats Microtube™ (cleaning hose)

Type	Dimensions in cm	Folding	Content pcs / pack	Packs per carton	Pieces per carton	Weight per carton in kg	Dimensions p. carton in cm
CC124P-I-H	length 8 Ø 5	none	50	30	1500	8	48 x 29 x 29