

## Cleanroom paper

Made in Germany

Cleanroom Paper must have a number of characteristics which are not practical or useful for standard papers. In particular, during handling it may only release a minimal number of particles. The fulfilment of this requirement prohibits the use of additives in paper production, which could easily be released when such paper is used. The dust on the cutting edges arising from cutting the cleanroom paper to format must be carefully removed. Cleanroom paper should be abrasion resistant, copyable, writable, printable and also sterilisable for use in the Pharma Industry. The paper should be tear and rip resistant so that limited numbers of particles are released during handling and there is no damage to the edges due to ripping. For the Semiconductor Industry it is important that cleanroom paper may only release minimal amounts of ionic contamination, because this can pose a risk for the semiconductor manufacturing process. Galaxy® cleanroom paper is used by the European Semiconductor-Industry since the early 90s.

Our SEM image on the right shows clearly, that our GALAXY® cleanroom paper has a high surface density, which ensures optimal surface purity due to the sealing with particle-binding polymers. Moreover, we offer our cleanroom paper with the following additional options: e.g. printed, with a 2 mm marking on both left and right margins in red, with standard multiple holes or, if specified, with holes and markings on both margins. We will also cut the paper to special formats up to a maximum of 106 x 60 cm.

### Characteristics

cleanroom paper with polymer coating, DIN format packs of 500 sheets

### Features

low particle release, low ionic content

### Application

As medium for documentation purposes in cleanrooms and laboratories of the semiconductor and pharmaceutical industry

### General technical specification

Textile construction	Paper	
Mesh / cm <sup>2</sup>	mechanically	
Cutting	Polymer	
Treatment	well suited	
Decontaminated	exceeded drying time	
Washable	Possible	
Sterilisable	yes	
Stat. Quality control	yes	



SEM photo Yuko Labuda, image height 3 mm

**General technical data**

Paper-construction	Value	Unit	After method
Thickness	0.103	mm	ISO 9073-2
Mass per surface unit	84.8	g/m <sup>2</sup>	ISO 9073-1
Tensile strength long	222.3	N	ISO 9073-3
Tensile strength lat	112.2	N	ISO 9073-3
Micro roughness RZ long	15.2	µm	ISO 9073-3
Micro roughness RZ lat	14.3	µm	ISO 9073-3

Other parameters	Value	Unit	After method
Triboelectric charge	1.8	kV	CC-W-TE
decay time	1.24	s	CC-W-TE

**Anion and cation inventory in ppm** measurement with capillary electrophoresis

Chloride	Fluoride	Nitrate	Nitrite	Phosphate	Sulphate		
0.76	0.084	0.514	-	0.078	0.887		
Ammonium	Barium	Calcium	Potassium	Lithium	Magnesium	Sodium	Strontium
0.072	-	-	0.103	-	-	2.805	-

**Classes** GALAXY®-Cleanroom-Paper is available in 2 different classes

Classes	Dekontamination of the edges	Paper surface with polymer-sealing	Extra-low ion-content
Dekontaminated	x	x	x
Standard	-	x	x

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.

Galaxy® is a registered trademark (No. 2076633) of Clear & Clean Werk für Reintechnik GmbH in Lübeck.

**Order and packing information GALAXY®**

Type	Surface weight in g/m <sup>2</sup>	Standard format size	Dimensions pack in cm	Packs per carton	Sheets per carton	Weight per carton in kg	Dimensions p. carton in cm
CC118D	80	A3	42 x 30 x 4.8	2	1000	10.5	45 x 33 x 12
CC115D	80	A4	30 x 21 x 4.8	5	2500	13.5	31 x 23 x 24
CC117D	80	A5	21 x 15 x 4.8	10	5000	13.5	31 x 23 x 24
CC118S	80	A3	42 x 30 x 4.8	2	1000	10.5	45 x 33 x 12
CC115S	80	A4	30 x 21 x 4.8	5	2500	13.5	31 x 23 x 24
CC117S	80	A5	21 x 15 x 4.8	10	5000	13.5	31 x 23 x 24

**Order and packing information / slip of paper, pocketblocks, collegeblocks and separators GALAXY®**

Type	Product	Size sheets/pages	Surface weight in g/m <sup>2</sup>	Pieces per pack	Dimensions of pack in cm	Weight per pack in kg
CC110	Pocketblock	A7, 50/100	80	12	18 x 15 x 5	0.65
CC112	Collegeblock	A4, 50/100	80	4	35 x 26 x 3.5	1.7
CC114	Collegeblock	A5, 50/100	80	4	22 x 18 x 4	0.74
CC113S-15	Separators	Ø 15 cm	80	2000	34 x 23 x 11	3.3