



Typical data

Grade 1 – Qualitative Filter*

Qualitative cellulose filter paper with medium retention and flow rate.
Frequently used for clarifying liquids covering a wide range of applications.

Grade:		1
Type:		CF
Description:		Pure cellulose paper
Composition:	Fiber type	100% cotton fiber
	Including binder?	No
Filtration speed:	Fast/medium/slow	Medium

Property	Description	Data	Units
Basis weight	Weight of 1 sq meter of filter paper	87	g/m ²
Typical thickness	Thickness under a defined pressure and contact area	180	µm @ 53 kPa
Filtration speed	Volume of water filtered through the filter paper using a defined area, pressure and time	110	mL/2 min
Maximum operating temperature	The maximum temperature the product can withstand for 1 hour	130	°C
Ash value	Ash content remaining after firing the filter paper at approximately 800°C	0.06	%
Autoclavability	Capability of withstanding treatment under 121°C and steam for 20 min	Yes	
Surface characteristics	Smooth/creped	Smooth	
Air retention efficiency	Retention efficiency of filter in air using 0.3 µm particles at a flow rate of 32 L/min using an area of 100 cm ²	N/A	%
Particle retention efficiency in liquid	Particle retention rating of filter at 98% efficiency in liquid	9.8	µm
Wet burst	The maximum pressure wet filter paper can withstand using an exposed area of 1 sq inch	7	inches H ₂ O
Wet burst - applicational use	The maximum vacuum pressure the filter paper can withstand during use in 100 mm diameter Büchner funnel	130.7	inches H ₂ O
Alpha cellulose content minimum		98	%
Phase separation functionality	The capability of separating water and organic solvent	N/A	N/A
Chemical compatibility HCl	Capability of withstanding HCl	1.00	mol/L
Chemical compatibility NaOH	Capability of withstanding NaOH	0.01	mol/L

*Typical data only and does not represent a product specification

Trace element composition – ppm

Silver	(Ag)	< 0.2	Aluminum	(Al)	4
Arsenic	(As)	< 0.4	Sodium	(Na)	41
Beryllium	(Be)	< 0.1	Magnesium	(Mg)	34
Cobalt	(Co)	< 0.4	Potassium	(K)	6
Chromium	(Cr)	< 0.3	Calcium	(Ca)	169
Copper	(Cu)	0.4	Iron	(Fe)	0.5
Mercury	(Hg)	< 0.4	Strontium	(Sr)	1
Lithium	(Li)	< 0.2	Titanium	(Ti)	4
Manganese	(Mn)	0.2	Zirconium	(Zr)	< 0.1
Nickel	(Ni)	< 1.0	Barium	(Ba)	1
Antimony	(Sb)	< 2.0	Zinc	(Zn)	2
Lead	(Pb)	≤1.2	Phosphorus	(P)	< 2.0
Boron	(B)	< 0.3	Silicon	(Si)	395

Note: Samples were digested with 6 mL HNO₃, 1 mL H₂O₂ and 3 mL HF and then tested by ICP-MS

gelifesciences.com/Whatman

GE, the GE monogram and Whatman are trademarks of General Electric Company.

© 2019 General Electric Company.

GE Healthcare UK Limited, Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA, UK

For local office contact information, visit gelifesciences.com/contact