



## Typical data

### Grade 40 – Quantitative Filter\*

High purity quantitative ashless cellulose filter paper with medium retention and flow rate. Typical applications include gravimetric analysis and solution clean up prior to AA spectrometry.

Grade:		40
Type:		CF
Description:		Ashless
Composition:	Fiber type	100% cotton fiber
	Including binder?	No
Filtration speed:	Fast/medium/slow	Slow

Property	Description	Data	Units
Basis weight	Weight of 1 sq meter of filter paper	95	g/m <sup>2</sup>
Typical thickness	Thickness under a defined pressure and contact area	210	µm @ 53 kPa
Filtration speed	Volume of water filtered through the filter paper using a defined area, pressure and time	80	mL/2 min
Maximum operating temperature	The maximum temperature the product can withstand for 1 hour	N/A	°C
Ash value	Ash content remaining after firing the filter paper at approximately 800°C	0.007	%
Autoclavability	Capability of withstanding treatment under 121°C and steam for 20 min	Yes	N/A
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 <sup>2</sup>	86.39	%
Particle retention efficiency in liquid	Particle retention rating of filter at 98% efficiency in liquid	7.8	µm
Wet burst	The maximum pressure wet filter paper can withstand using an exposed area of 1 sq inch	8	inches H <sub>2</sub> O
Wet burst - applicational use	The maximum vacuum pressure the filter paper can withstand during use in 100 mm diameter Büchner funnel	406.5	inches H <sub>2</sub> 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	0.5	mol/L
Chemical compatibility NaOH	Capability of withstanding NaOH	0.5	mol/L

\*Typical data only and does not represent a product specification

# Trace element composition – ppm

Silver	(Ag)	< 0.2	Aluminium	(Al)	2.7
Arsenic	(As)	< 0.4	Sodium	(Na)	20.6
Beryllium	(Be)	< 0.1	Magnesium	(Mg)	5.7
Cobalt	(Co)	< 0.4	Potassium	(K)	5.0
Chromium	(Cr)	< 0.3	Calcium	(Ca)	82.9
Copper	(Cu)	< 0.2	Iron	(Fe)	2.7
Mercury	(Hg)	< 0.4	Strontium	(Sr)	< 0.1
Lithium	(Li)	< 0.2	Titanium	(Ti)	< 0.5
Manganese	(Mn)	< 0.2	Zirconium	(Zr)	< 0.1
Nickel	(Ni)	< 1.0	Barium	(Ba)	0.2
Antimony	(Sb)	< 2.0	Zinc	(Zn)	1.6
Lead	(Pb)	< 1.0	Phosphorus	(P)	< 2.0
Boron	(B)	1.0	Silicon	(Si)	325.0

**Note:** Samples were digested with 6 mL HNO<sub>3</sub>, 1 mL H<sub>2</sub>O<sub>2</sub> and 3 mL HF and then tested by ICP-MS

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