

DOMINIQUE DUTSCHER SAS

Whatman™ Quantitative Filter Papers, Hardened Ashless, Grade 541

Grade 541 filter paper offers high wet-strength and chemical resistance for fast analytical filtration.

Overview

Cytiva's Whatman Grade 541 acid hardened cellulose filter paper features high wet-strength, high chemical resistance, and a large nominal particle retention for fast analytical filtration.

- High wet-strength
- High chemical resistance to strong acid and alkali suspensions
- Retention of gelatinous precipitate
- 22 µm nominal particle retention rating
- Fast flow rate (Herzberg filtration speed 34 s)
- Maximum of 0.006% ash concentration

Along with fast Grade 541 filter paper, the hardened, ashless range from Cytiva's business includes general-purpose Grade 540 and Grade 542 for fine particle retention. All three paper grades are appropriate for use in gravimetric analysis with strong acids and alkali samples.

Gelatinous precipitate retention

Hardened ashless filter paper is recommended when fast filtration of a gelatinous precipitate for gravimetric analysis is performed on a strongly acidic or alkali solution. Applications of Grade 541 papers include:

- Use as an animal foodstuff filter for determining fiber content
- Determination of gelatin content in milk and cream
- Quantification of chloride in cement, as well as chloride and phosphorous in coal and coke

Looking for a filter paper, membrane filter, or syringe filter? Let Cytiva help you find the optimal filter for your needs to ensure reliable analysis.

Product specifications

Whatman™ Grade 541 quantitative filter paper, hardened ashless, fast, 42.5 mm circles (100/Pk)

Catalog code	1541-042
Diameter	42.5 mm
Pack size	100/Pk
Format	Circles
Grade	Grade 541
Material	High-quality cotton linters
Basis weight	78 g/m²
Nominal thickness	155 µm
Alpha cellulose content min.	≥98%
Application	Typical applications include fiber in animal foodstuffs, gelatine in milk and cream, chloride in cement, and chloride and phosphorous in coal and coke.
Ash content %	0.005%
Nominal air flow rate	3 s/100 mL/in²
Type	Hardened Ashless
Typical particle retention in liquid	22µm
Typical trace element levels	Aluminium 3.4 µg/g ; Antimony <0.5 µg/g ; Arsenic <0.5 µg/g ; Barium <0.5 µg/g ; Boron <1 µg/g ; Calcium 14.7 µg/g ; Chromium 1.1 µg/g ; Copper 8.2 µg/g ; Iron 16.3 µg/g ; Lead <0.5 µg/g ; Magnesium 3.3 µg/g ; Manganese <0.5 µg/g ; Mercury <0.5 µg/g ; Potassium 3.7 µg/g ; Silicon <6 µg/g ; Sodium 17 µg/g ; Zinc 87.8 µg/g
Typical water flow rate	359 ml/min at 45 psi (3.1 bar)
Color	White
Weight	113 g/m²

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