

Whatman™ Quantitative Filter Papers, Hardened Ashless, Grade 540

Grade 540 filter paper is acid-treated for strong mechanical performance in quantitative analysis of acidic or alkaline samples.

Overview

Cytiva's Whatman Grade 540 is a high-purity, acid-treated cellulose lab filter paper. Mechanically strong Grade 540 is well suited for quantitative or gravimetric analysis of strongly acidic or alkaline samples.

- Acid-treated for high wet-strength
- Extremely low ash content (0.006% ash maximum)
- Nominal particle retention of 8 µm
- Medium flow rate (Herzberg filtration speed 200 s)
- High chemical resistance to strong acid and alkali suspensions

Cytiva's business offers hardened ashless filter paper for a variety of precipitate sizes. Along with general filtration Grade 540, the range includes Grade 542 for retention of fine precipitates and Grade 541 for fast filtration. All three grades are designed for use in gravimetric analysis.

Gravimetric analysis of acid and alkali suspensions

Cytiva's hardened, ashless Grade 540 lab filter paper is frequently used as a gravimetric filter during analysis of metals in acidic or alkaline solutions and in the collection of hydroxides. The acid-treated surface prevents tearing during filtration and allows the user to scrape precipitates from the paper.

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 540 quantitative filter paper, hardened ashless, 42.5 mm circles (100/Pk)

Catalog code	1540-042
Diameter	42.5 mm
Pack size	100/Pk
Format	Circles
Grade	Grade 540
Material	High-quality cotton linters
Basis weight	85 g/m²

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Nominal thickness	160 µm
Alpha cellulose content min.	≥98%
Application	Frequently used in the gravimetric alysis of metals in acid/alkali solutions and in collecting hydroxides after precipitation by strong alkalis.
Ash content %	0.005%
Nominal air flow rate	13 s/100 mL/in²
Type	Hardened Ashless
Typical particle retention in liquid	8 µm
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	97 ml/min at 45 psi (3.1 bar)
Color	Yellow

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