

# Quantitative filter paper

Hyundai Micro's Quantitative Filter Papers are Made of High Quality Materials Imported Munktell in Sweden and We Provide them with Moderate Prices.



## Quantitative filter paper

Quantitative filter paper is used for precise quantitative analysis to detect kinds and amounts of materials in analysis samples.

#### Merits

Hyundai Micro's quantitative filter paper is made of refined pulp with nearly 100% alpha-cellulose and has less than 0.1% of ash contents. As quantitative analysis requires high purity, it is washed with acid. This can be produced in any size that you need as well as in standard sizes. We maintain the highest quality in accordance with ISO 9001:2008 to guarantee reliable results.

#### **Products**

#### **No.50** ( $12 \sim 15 \mu \text{m}$ )

· The fastest filtration speed

#### Applications

- Filtering coarse particles such as iron hydroxide, aluminum hydroxide and chromium hydroxide
- Used to analyze silicon in steel and pig iron

#### **No.51** (8~12μm)

 With fast filtration speed, it is a typical product used for quantitative analysis • Suitable for filtration of coarse particles such as lead sulfide, Used for analysis of beer or malt

#### Applications

- Used for analysis of lead sulfide, iron sulfide and silver sulfide
- Measurement of alkali carbonates
- Beer or malt analysis
- Filtration of solutions for electrolytic analysis, colorimetric analysis and optical instrument tests
- Filtration of pharmaceutical, zoological, and botanical experiments
- Suitable for analysis of food and soil

## **No.52** (3~5μm)

- Suitable for filtration of precipitate for a wide range of quantitative analysis
- · Used for fast filtration of fine precipitate

#### Applications

 Filtration of relatively fine particles such as lead dioxide, fluoride calcium, nickel sulfide and zinc sulfide

#### **No.53** ( $1 \sim 2 \mu m$ )

 The finest filter papers among Hyundai Micro cellulose filter papers

#### Applications

- Used for filtration of fine precipitate such as strontium sulfate, barium sulfate and mercury chromate,
- Used for filtration for pharmaceutical, zoological, botanical, and bacterial experiments



#### **No.60** (2~3μm)

- Thin filter speed with fast filtration speed
- Used for filtration of fine particles such as barium sulfate, metastannic acid and cuprous oxide

#### Applications

- Analysis of a very small amount of precious metal
- Beverage analysis
- Chemical and medical experiments



## **No.30** ( $5 \sim 8 \mu m$ )

 Medium filtration speed and precision, suitable for filtration of medium-sized precipitate such as calcium oxalate, magnesium / ammonium phosphate

#### Applications

- Filtration of medium-sized precipitate such as calcium oxalate, magnesium phosphate, ammonium phosphate, potassium carbonate, zinc sulfide and stannic oxide
- Filtration of pharmaceutical, zoological, and botanical experiments
- \*\* The pore sizes are indicated in accordance with the test methods selected by each filter paper manufacturer. Thus, filtration performance may be the same even though pore sizes are different from those of others manufacturers.

## Properties

Grade	Basic weight (g/m²)	Thickness (mm)	Filtration Speed (s / 100ml)	Retention Rate	Ash Contents (%)
No.50	84	0.20	40	12∼15µm	⟨ 0.01
No.51	84	0.19	90	8~12µm	⟨0.01
No.52	84	0.16	800	3~5µm	⟨0.01
No.53	100	0.20	2,500	1~2µm	⟨0.01
No.60	84	0.15	1,200	2~3µm	⟨0.01
No.30	84	0.17	300	5~8µm	⟨0.01

<sup>※</sup> Basic weight (g / m²): In accordance with DIN EN ISO 536, a test is performed with filter papers from 500 m² to 1,000 m²

 $Ash \, Contents \, (\,\%\,) : Weight \, of \, residues \, after \, 10g \, of \, filter \, paper \, is \, ignited \, \, in \, platinum \, crucible \, at \, 800^\circ\!C.$ 

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Item code	Item codes ⟨Unit: 100 sheets/pack⟩									
Grade(mm)	Ø55	Ø70	Ø90	Ø110	Ø125	Ø150	Ø185	Ø200	Ø240	Ø250
No.50	HM.5012055	HM.5012070	HM.5012090	HM.5012110	HM.5012125	HM.5012150	HM.5012185	HM.5012200	HM.5012240	HM,5012250
No.51	HM.5108055	HM.5108070	HM.5108090	HM.5108110	HM.5108125	HM.5108150	HM.5108185	HM.5108200	HM.5108240	HM,5108250
No.52	HM.5203055	HM.5203070	HM.5203090	HM.5203110	HM.5203125	HM.5203150	HM.5203185	HM.5203200	HM.5203240	HM,5203250
No.53	HM.5301055	HM.5301070	HM.5301090	HM.5301110	HM.5301125	HM.5301150	HM.5301185	HM.5301200	HM.5301240	HM,5301250
No.60	HM.6002055	HM.6002070	HM.6002090	HM.6002110	HM.6002125	HM.6002150	HM.6002185	HM.6002200	HM.6002240	HM.6002250
No.30	HM.3005055	HM.3005070	HM.3005090	HM.3005110	HM.3005125	HM.3005150	HM.3005185	HM.3005200	HM.3005240	HM.3005250
Grade( mm )	Ø285	Ø300	Ø350	Ø380	Ø400	Ø450	Ø500	Ø550	Ø600	600×600
No.50	HM.5012285	HM.5012300	HM.5012350	HM.5012380	HM.5012400	HM.5012450	HM.5012500	HM.5012550	HM.5012600	HM.5012600A
No.51	HM.5108285	HM.5108300	HM.5108350	HM.5108380	HM.5108400	HM.5108450	HM.5108500	HM.5108550	HM.5108600	HM.5108600A
No.52	HM.5203285	HM.5203300	HM.5203350	HM.5203380	HM.5203400	HM.5203450	HM.5203500	HM.5203550	HM.5203600	HM.5203600A
No.53	HM.5301285	HM.5301300	HM.5301350	HM.5301380	HM.5301400	HM.5301450	HM.5301500	HM.5301550	HM.5301600	HM,5301600A
No.60	HM.6002285	HM.6002300	HM.6002350	HM.6002380	HM.6002400	HM.6002450	HM.6002500	HM.6002550	HM.6002600	HM.6002600A
No.30	HM.3005285	HM,3005300	HM.3005350	HM.3005380	HM.3005400	HM.3005450	HM.3005500	HM,3005550	HM.3005600	HM,3005600A

X Qualitative filter paper is available in a roll type as well as a sheet type.

<sup>\*</sup>Thickness (mm): In accordance with DIN EN ISO 534, the value measured by a thickness measurer with pressure of 10N /or

<sup>\*</sup>Filtration speed (s/10ml): Fold a filter paper with a diameter of 110m in quarter and soak it, Then, hang it and filter 10 ml of distilled water at 20 °C, Time that it takes for filtration is measured,

<sup>\*</sup>Retention rate (m): Retention rate is calculated by test methods of filter paper manufactures. As each manufacturer has a different test method, use these data for reference only.

<sup>\*</sup> For special sizes which are not mentioned in the above, please contact us.



## Qualitative / Quantitative paper by purpose

## % Refer to the below table.

Qualitative filter paper	Characteristics of filtration	Applications
No.1 / No.20 / No.2	Medium filtration rate Medium pore size	Suitable for fast filtration of fine precipitate such as barium, calcium, oxalate, magnesium phosphate and phosphate (Widely used for clarifying filtration and analysis)
No.200	Very slow filtration rate Fine pore size	Suitable for filtration of fine precipitate such as barium and sulfate
No.100	Slow filtration rate Narrow pore size	Suitable for filtration of fine precipitate such as nickel sulfide and lead dioxide
No.21	Fast filtration rate Medium pore size	Generally used for coarse particle and qualitative work. Suitable for analysis of lead, iron and beer/malt
No.22	Very fast filtration rate Very fast filtration rate	Suitable for filtration for large and coarse precipitate such as iron, aluminum and iron hydroxide (analysis of cast iron)

#### X Selection of no ash quantitative filter has been simplified. Refer to the below table.

Quantitative filter papers	Characteristics of filtration	Applications
No.50	Fast filtration rate	Suitable for filtration of large and coarse particle such as iron, aluminum and iron hydroxide (analysis of cast iron)
No.51	Medium to fast filtration rate Medium pore size	Generally used for coarse particle and qualitative work, Suitable for analysis of lead, iron, food and soil
No.52	Slow filtration rate Narrow pore size	Suitable for filtration of fine precipitate such as lead dioxide, fluoride calcium and nickel sulfide
No.53	Very slow filtration rate Very fine pore size	Suitable for filtration of very fine precipitate particularly under difficult filtration conditions
No.30	Medium to slow filtration rate Medium to fine pore size	Suitable for filtration of fine precipitate of coarse form such as barium, calcium, oxalate, magnesium phosphate and phosphate
No.60	Very slow filtration rate Fine pore size	Suitable for filtration of fine particle precipitate such as barium, sulfate and precious metals

## Comparison table for qualitative/quantitative filter paper with other manufactures

<b>HYUNDAIMICRO</b>	WHATMAN	ADVANTEC No.1	
No.10	No.1		
No.2 / No.20	No.2	No.2 / No.232	
No.200	-	_	
No.100	No.6	No.3	
No.21	-	-	
No.22	No.4	-	
No.50	No.41 / No.54 / No.541	-	
No.51	No.40 / No.43	No.5A	
No.52	No.44	No.5B	
No.53	No.42	No.5C	
No.30	No.52 / No.540	No.3	
No.60	No.42 / No.50 / No.542	No.6 / No.4A	

X The table above is to help you decide which filter paper is suitable for you to use, since it can be vary on its performances depending on the manufacturers.