# Qualitative Filter Paper

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


## Qualitative Filter Paper

Qualitative filter papers are originally used to detect materials which exist in analysis samples. However, as they can be produced at a reasonable price and in various sizes, they are used for a variety of purposes from laboratories to production sites.

## Merits

Hyundai Micro's qualitative filter papers consist of nearly 100% alpha-cellulose and have less than 0.1% of ash contents.

Characterized by their slim shapes. Enhanced wet burst strength

They are available in any size you need as well as in standard sizes. We maintain the highest quality in accordance with ISO 9001:2008.

Alpha-cellulose is a main ingredient of pulp which is raw material for paper. It is divided into three types: $\alpha$, $\beta$, and $\gamma$. Among these, $\alpha$-cellulose is not soluble in solutions with 17~18% sodium hydroxide. It has a high degree of polymerization and it is pure cellulose. Beta-cellulose is the soluble fraction which is reprecipitated on acidification of the solution; gamma-cellulose is that fraction remaining in the solution.

## Applications

- Liquids purification in qualitative analysis
- Filtration of precipitate such as calcium hydroxide, lead sulfide and calcium carbonate
- Seed testing and Soil analysis
- Detection and measurement of dust and gas
- Filtration of buffer solutions and dye

Selecting the right paper

The selection of a laboratory filter depends on the conditions and objectives of the experiment or analytical procedure. The three most important characteristics of any laboratory filter are:

① Determine the precision of filtration

② Characters of liquids for filtration (pH, temperature, viscosity)

③ Examine carefully conditions of particles to be sampled (particle diameter, particle concentration)

※ Low-cost filter papers for scientific experiments by students are available.

## Products

There are 7 different types of filters depending on precipitate retention and filtration time.

### No.10 ( 6~10㎛ )

- Relatively fast filtration speed
- Used for diverse purposes such as filtration of viscous solutions and bacterial culture medium
- Widely used for clarifying filtration and Analysis

Applications

- Dyeing test, filtration of viscous solutions such as oil and juice and scientific experiments

### No.20 ( 5~8㎛ )

- Medium filtration speed
- Widely used for qualitative analysis which requires preciseness as it filters precipitates well

Applications

- General qualitative analysis, General physico-chemical experiments
- Determining fractional crystallization and filtration of nickel, sulfide and lead dioxide
- Sulfur analysis (coal, cork, charcoal, etc)

### No.2 ( 5~8㎛ )

- The thickest qualitative filters
- Same filtration performance as other companies' item No.2, Due to its strong burst strength, it performs consistent filtration under strong pressure.

Applications

- General qualitative analysis, General physico-chemical experiments
- Medicinal analysis, liquid culture medium, antibiotic field
- Ink, food coloring, plating solution

### No.200 ( 2~3㎛ )

- Surface hardened filter paper, the slowest filtration speed
- Generally used to analyze fine particles mixed in a large amount of liquid

Applications

- Filtration of fine particles such as barium sulfate, metastannic acid, cuprous oxide, etc

### No.100 ( 3~5㎛ )

- Surface hardened filter paper, slow filtration speed, used for relatively precise filtration
- More suitable for fine precipitate filtration than N0.20, Available for pressure filtration

Applications

- Filtration of fine particle such as nickel sulfide, lead dioxide, calcium fluoride, zinc sulfide etc

### No.21 ( 8~12㎛ )

- Suitable for filtration of coarse precipitates such as lead sulfide, iron sulfide and silver sulfide etc

Applications

- Measurement for alkali carbonates
- Available for beer or malt analysis

### No.22 ( 12~15㎛ )

- The fastest filtration speed
- Used to filter coarse particles such as iron hydroxide, aluminum hydroxide and chromium hydroxide
- Used to analyze silicon in steel and pig iron

Applications

- Filtration of iron hydroxide, plating solutions and food coloring


※ 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 with those of others manufacturers.

# QUALITATIVE FILTER PAPER

## Properties

| Grade | Basic weight ( g / ㎡ ) | Thickness ( mm ) | Filtration Speed ( s / 100ml ) | Retention Rate ( ㎛ ) | Ash Contents ( % ) |
|---|---|---|---|---|---|
| **No.10** | 70 | 0.17 | 22 | 6~10 | - |
| **No.20** | 85 | 0.20 | 27 | 5~8 | 0.1 |
| **No.2** | 130 | 0.26 | 30 | 5~8 | - |
| **No.200** | 84 | 0.16 | 180 | 2~3 | 0.1 |
| **No.100** | 84 | 0.16 | 100 | 3~5 | 0.1 |
| **No.21** | 84 | 0.20 | 20 | 8~12 | 0.1 |
| **No.22** | 84 | 0.21 | 10 | 12~15 | 0.1 |

※ Basic weight ( g / ㎡ ) : In accordance with DIN EN ISO 536, a test is performed with filter papers from 500㎠ to 1,000㎠

※ Thickness ( mm ) : In accordance with DIN EN ISO 534, the value measured with a thickness measurer under pressure of 10N / ㎠

※ 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 ℃. Time that it takes for filtration is measured.

※ Retention rate ( ㎛ ) : 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.

※ Ash Contents ( % ) : Weight of residues after 10g of filter paper is ignited in platinum crucible at 800℃.

## Item codes

〈Unit: 100 sheets/pack〉

| Grade(mm) | Ø55 | Ø70 | Ø90 | Ø110 | Ø125 | Ø150 | Ø185 | Ø200 | Ø240 | Ø250 |
|---|---|---|---|---|---|---|---|---|---|---|
| **No.10** | HM.01006055 | HM.01006070 | HM.01006090 | HM.01006110 | HM.01006125 | HM.01006150 | HM.01006185 | HM.01006200 | HM.01006240 | HM.01006250 |
| **No.20** | HM.02005055 | HM.02005070 | HM.02005090 | HM.02005110 | HM.02005125 | HM.02005150 | HM.02005185 | HM.02005200 | HM.02005240 | HM.02005250 |
| **No.2** | HM.00205055 | HM.00205070 | HM.00205090 | HM.00205110 | HM.00205125 | HM.00205150 | HM.00205185 | HM.00205200 | HM.00205240 | HM.00205250 |
| **No.200** | HM.20002055 | HM.20002070 | HM.20002090 | HM.20002110 | HM.20002125 | HM.20002150 | HM.20002185 | HM.20002200 | HM.20002240 | HM.20002250 |
| **No.100** | HM.10003055 | HM.10003070 | HM.10003090 | HM.10003110 | HM.10003125 | HM.10003150 | HM.10003185 | HM.10003200 | HM.10003240 | HM.10003250 |
| **No.21** | HM.02110055 | HM.02110070 | HM.02110090 | HM.02110110 | HM.02110125 | HM.02110150 | HM.02110185 | HM.02110200 | HM.02110240 | HM.02110250 |
| **No.22** | HM.02212055 | HM.02212070 | HM.02212090 | HM.02212110 | HM.02212125 | HM.02212150 | HM.02212185 | HM.02212200 | HM.02212240 | HM.02212250 |

| Grade(mm) | Ø285 | Ø300 | Ø350 | Ø380 | Ø400 | Ø450 | Ø500 | Ø550 | Ø600 | 600×600 |
|---|---|---|---|---|---|---|---|---|---|---|
| **No.10** | HM.01006285 | HM.01006300 | HM.01006350 | HM.01006380 | HM.01006400 | HM.01006450 | HM.01006500 | HM.01006550 | HM.01006600 | HM.01006600A |
| **No.20** | HM.02005285 | HM.02005300 | HM.02005350 | HM.02005380 | HM.02005400 | HM.02005450 | HM.02005500 | HM.02005550 | HM.02005600 | HM.02005600A |
| **No.2** | HM.00205285 | HM.00205300 | HM.00205350 | HM.00205380 | HM.00205400 | HM.00205450 | HM.00205500 | HM.00205550 | HM.00205600 | HM.00205600A |
| **No.200** | HM.20002285 | HM.20002300 | HM.20002350 | HM.20002380 | HM.20002400 | HM.20002450 | HM.20002500 | HM.20002550 | HM.20002600 | HM.20002600A |
| **No.100** | HM.10003285 | HM.10003300 | HM.10003350 | HM.10003380 | HM.10003400 | HM.10003450 | HM.10003500 | HM.10003550 | HM.10003600 | HM.10003600A |
| **No.21** | HM.02110285 | HM.02110300 | HM.02110350 | HM.02110380 | HM.02110400 | HM.02110450 | HM.02110500 | HM.02110550 | HM.02110600 | HM.02110600A |
| **No.22** | HM.02212285 | HM.02212300 | HM.02212350 | HM.02212380 | HM.02212400 | HM.02212450 | HM.02212500 | HM.02212550 | HM.02212600 | HM.02212600A |

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

※ For special sizes which are not mentioned in the above, feel free to contact us.