Corporate Standard of TESTEX

TS M005-2020

Quality Control Standard of ES Hot-air Cotton for Face Mask

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Foreword

This standard is set up to be referenced as a practical guide for hot-air cotton manufacturers, suppliers, and masks manufacturers to produce, supply and purchase the correct hot-air cotton fabric for mask production, based on the data we tested and gathered from our mask production experience.

1 Scope

This standard is used to validate the quality of ES hot-air cotton, which used in folded mask production, like KN95 face masks, FFP2 face mask, and N95 mask.

2 References

GB 18401-2010  National basic safety technical specifications for textile products
GB 2626-2006  Respiratory protection mask

3 Technical requirement

| Safety and health requirements | safety and hygiene | 1. Dry, free of mold or insects.  
|                              |                | 2. No health hazards such as arthropods or cockroach eggs.  
|                              |                | 3. No mud, sand, metal or plastic woven material.  
| Appearance                    | Marks          | Model/Specifications/Manufacturer/Lot No./ Quantity  
|                              | Width          | (27 ± 2) cm  
|                              | Welding area   | Less than 2 per roll, percent per batch ≤ 5%  
|                              | Surface        | Uniform thickness, smooth surface, no obvious creases, neatly rolled; do not allow any holes, cracks, cuts.  
| Smells                        |                | No abnormal, irritating odors  
| Composition                   | Fiber content  | Ethylene / polypropylene composite fiber  
| Physical and chemical properties | GSM         | (45 ± 5) g/m²  
|                              | pH             | 4.0 ~ 8.5  
|                              | Tensile and elongation | Breaking force (N)  
|                              |                | Horizontal ≥ 2, vertical ≥ 5 |
4 Experiment method

4.1 Fiber content
According to the method specified in FZ/T 01057.2.3.4-2007.

4.2 GSM
Test according to GB/T 13962-2009 method

4.3 Breaking strength and elongation at break
Test according to GB/T 24218.3 method, should meet the requirements of Table 3. (Strip method: specimen width 50mm, clamping distance 200mm, speed 100mm/min, maximum force during tensile process as tensile strength).

4.4 Odor
Test according to the method specified in 6.7 of GB 18401-2010

5 Marks, packaging, transportation and storage

5.1 Marks
5.1.1 The minimum information on the minimum packaging of the product should provide the following information:
   a. Production unit name, address, contact information;
   b. Product name, product category and level;
   c. Product implementation standard number;
   d. Product specifications (quality per unit area, width, roll length, etc.);
   e. Production lot number, limited use period (expiration year and month);

5.1.2 The following marks should be on the large packaging of the product:
   a. Production unit name, address, contact information;
   b. Product name, product category and level;
   c. Product implementation standard number;
   d. Product specifications (quality per unit area, width, roll length, etc.), quantity
   e. Production lot number, limited use period (expiration year and month);

5.1.3 The following signs shall be on the inspection certificate:
   a. production lot number;
   b. inspection date;
   c. inspector code;
   d. Inspection pass seal.

5.2 Package
Product packaging materials should ensure that the product quality is not damaged and easy to transport.

5.3 Transportation
The product should be protected from light, water, moisture, pollution, breakage and crushing during transportation. Transportation requirements are stipulated in the order contract.

5.4 Storage
The product should be stored in a dry, ventilated, dark and clean environment, away from fire and flammable materials.