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Fluff pulp

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Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China;

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Foreword

Appendix A and Appendix B of this Standard are normative.

This Standard was proposed by China National Light Industry Council.

This Standard shall be under the jurisdiction of National Standardization Technical Committee of Paper-making Industry.

Main drafting organizations of this Standard: Tianjin Entry-Exit Inspection and Quarantine Bureau; AND China National Pulp and Paper Research Institute.

Drafting organizations of this Standard: Yunnan Investment Forestry and Pulp Co., Ltd.; AND Guangxi Nanning Fenghuang Paper Co., Ltd.

Main drafters of this Part: Li Jianyong, Zhao Lihua and Chen Xi.

This standard is explained by the National Standardization Technical Committee of the National Paper Industry.

This standard is issued for the first time.

Fluff pulp

1 Scope

This Standard specifies the product classification, technical requirements, test methods, inspection rules and marks, packaging, transportation and storage of fluff pulp.

This Standard is applicable to the raw-material fluff pulp for the production of disposable hygienic products.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 451.2 Paper and board -- Determination of grammage (GB/T 451.2-2002, eqv ISO 536:1995)

GB/T 451.3 Paper and board -- Determination of thickness (GB/T 451.3-2002, idt ISO 534:1988)

GB/T 462 Paper and board -- Determination of moisture (GB/T 462-2003, ISO 287:1985, MOD)

GB/T 740 Pulps -- Sampling for testing (GB/T 740-2003, ISO 7213:1991, IDT)

GB/T 1539 Paperboard -- Determination of bursting strength (GB/T 1539-2007, ISO 2759:1983, EQV)

GB/T 2828.1 Sampling procedures for inspection by attributes – Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (GB/T 2828.1-2003, ISO 2859-1:1999, IDT)

GB/T 7974 Paper, board and pulp -- Measurement of brightness -- Diff/Geometry (GB/T 7974-2002, neq ISO 2470:1999)

GB/T 7979 Pulps -- Determination of dichloromethane soluble matter

GB/T 10739 Paper, board and pulps -- Standard atmosphere for conditioning and testing (GB/T 10739-2002, eqv ISO 187:1990)

acceptance quantity, then shall be deemed that this batch is acceptable; If the quantity of the unaccepted products which are found in the first sample is greater than or equal to the first rejection quantity, then it shall be deemed that this batch is unacceptable. If the quantity of the unaccepted products which are found in the first sample is between the first acceptance quantity and the first rejection quantity, then the second sample which is given by the scheme shall be tested, and the quantity of the unaccepted products which are found in the first sample and the second samples shall be accumulated. If the cumulative quantity of the unaccepted products is less than or equal to the second acceptance quantity, then it shall be deemed that this batch is acceptable; If the cumulative quantity of the unaccepted products is greater than or equal to the second acceptance quantity, then it shall be deemed that this batch is unacceptable.

7.5 The hygienic indicators shall be determined according to GB 15979. If one indicator of the hygienic indicators does not comply with the provisions, then this batch shall be judged as unqualified.

7.6 If the Buyer has any objection to the product quality, then the products of this batch shall be sealed AND the Supplier shall be notified within three months after the arrival (or according to the contract). The products shall be sampled and inspected jointly by the Supplier and Buyer. If it fails to comply with this Standard, then it shall be judged as the unqualified products, it shall be handled by the Supplier; if it complies with this Standard, then the batch shall be judged as the qualified product, it shall be handled by the Buyer.

8 Mark, packaging, transportation and storage

8.1 Each roll of fluff pulp shall be marked with the product name, product's standard number, trademark, manufacturing enterprise's name, address, specification, batch number or roll number, quantification, air-dry weight, grade, date of manufacture; and the product should be attached with the product qualification certificate.

8.2 Each roll of the product shall be wrapped tightly with the plastic film.

8.3 When transporting the products, it should use the clean transportation facilities which have the safeguard procedures. The products shall not be transported with the materials with contamination nature.

8.4 During the process of handling, it shall pay attention to unload the products gently, and to prevent the rain and damp. The products shall not be tossed or thrown.

8.5 The products shall be properly stored in the dry, clean, non-toxic, odor-free and pollution-free warehouse.

absorption quantity of fluff pulp

Take 3g of the dispersed fluff pulp; mold it in the molding pipe which is placed with the fluff pulp sample. The sample shall be retained in the molding pipe. Each sample should have at least 5 pieces of specimen. Place the sample's molding pipe on the fluff pulp's fluffiness degree & water absorption quantity analyzer which is not filled with water. Gently add 500g of load on the fluff pulp. Remove the sample's molding pipe. Record the height of the specimen after 30s, i.e. the height of fluffiness of the fluff pulp. The unit is millimeters. Start the water pump; inject 23 °C water into the fluff pulp's fluffiness degree & water absorption quantity analyzer. Start the timer. Record the water absorption time after the specimen is saturated with water; take two significant digits. The water absorption of the sample shall be at least 30s, and then reduce the water level. After the wet sample drains for 30s, remove the load; weigh the wet sample.

At least three parallel tests shall be performed; check the results obtained from each sample; ignore the maximum value; calculate the average value of the dry-fluffiness degree, water absorption time and water absorption quantity respectively.

B.4 Calculation of the results

B.4.1 The dry-fluffiness degree of fluff pulp, X (cm^3/g), shall be calculated as the formula (B.1). The accuracy is 0.5cm^3/g.

$$X = S \cdot h/10m_1 = 0.655h \quad \cdots\cdots (B.1)$$

Where:

S -- The basal area of the specimen. The unit is square centimeter (cm^2) (S of 50mm basal diameter is 19.64 cm^2);

h -- the height of the specimen after compression. The unit is millimeter (mm);

m_1 -- The mass of the sample under the condition of standard atmosphere. The unit is gram (g) (it is 3.0g here).

B.4.2 The dry-fluffiness degree of fluff pulp, X (cm^3/g), shall be calculated as the formula (B.1). The accuracy is 0.5cm^3/g.

$$Y = (m_2 - m_1)/m_1 \quad \cdots\cdots (B.2)$$

Where:

m_2 -- the mass of the sample after water absorption. The unit is gram (g).

m_1 -- the mass of the sample under the condition of standard atmosphere. The unit is

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