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PEOPLE'S REPUBLIC OF CHINA**

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Cotton - Cotton of sterile seeds

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Foreword

GB/T 35872-2018 was issued on 6 February 2018 by the General Administration of Quality Supervision, Inspection and Quarantine and the Standardization Administration of the People's Republic of China, and has been in force since 1 September 2018. The /T in the designation marks it as a recommended national standard.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by, and is under the jurisdiction of, the China Fiber Inspection Bureau. The drafting unit is the Hubei Provincial Fiber Inspection Bureau.

1 Scope

China's national standard for cotton of sterile seeds, the fibre recovered from the unfertilised seed that the gin stand and the lint cleaner throw out with the waste. A sterile

seed is a cotton seed that was never fertilised: it stays white, small and flat, and although it carries fibre it is separated out of the lint stream because it will not gin cleanly. Ginneries that process large tonnages accumulate that material in quantity, and rather than burn it they reclaim the fibre from it and sell it as a lower grade cotton for coarse yarns, wadding and nonwovens. What was missing was any agreed way to describe it, so a by-product with real value was bought and sold by eye and by argument, with no common language for colour, length or the amount of very short fibre it contains. This standard supplies that language: it specifies the technical requirements, the test methods and the marking, packaging, storage and transport of cotton of sterile seeds, and applies to inspection at the processing, the trading and the using stage. Its centre is a quality mark, of the form RC2251, that packs the type, the colour grade, the length grade and the short fibre content band into one code a buyer can read off the bale. Short fibre content is the variable that matters most here, because material reclaimed from gin waste is by nature full of it, and the standard is the only place that fixes a normative test method for measuring it in this product.

This standard specifies the technical requirements, the test methods and the marking, packaging, storage and transport of cotton of sterile seeds.

This standard applies to the inspection of cotton of sterile seeds at the processing, trading and use stages.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition (including all amendments) applies.

GB/T 6097 Test methods for cotton fibres - Sampling

GB/T 6102.1 Test method for moisture regain of raw cotton - Oven-drying method

GB/T 6102.2 Test method for moisture regain of raw cotton - Electrical resistance method

GB/T 6499 Test method for trash content of raw cotton

GB/T 8170 Rules of rounding off for numerical values and expression and judgement of limiting values

GB/T 13786 Simulated daylight illumination for the cotton classing room

GB/T 19617 Test method for cotton length - Hand-stapling and ruler measuring method

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 sterile seeds: Cotton seeds that have not been fertilised, white in colour and flat and round in shape.

3.2 cotton of sterile seeds: The cotton fibre obtained by processing the sterile seeds still carrying fibre and other such matter that are discharged from the gin stand and from the lint cleaner.

3.3 staple fibre: Cotton fibre whose length is 16 mm or less.

3.4 foreign fibre: Non-cotton fibre and non-natural-coloured cotton fibre mixed into the cotton of sterile seeds, such as chemical fibre, hair, silk, hemp, plastic film, plastic rope and dyed thread, rope or cloth.

3.5 gross weight: The sum of the weight of the cotton of sterile seeds and of its packaging.

3.6 net weight: The weight remaining after the weight of the packaging has been deducted from the gross weight.

3.7 conditioned weight: The weight obtained by converting the net weight, on the basis of the actual trash content and the actual moisture regain, to the standard trash content and the conditioned moisture regain.

4.1 Quality assessment indexes of cotton of sterile seeds

The quality assessment indexes of cotton of sterile seeds comprise the colour grade, the length, the short fibre content, the foreign fibre, the moisture regain and the trash content.

4.2 Method of expressing the quality mark of cotton of sterile seeds

The quality mark of cotton of sterile seeds is expressed by the principal colour grade, the length grade and the short fibre content band, in that order: type code, colour grade code, length grade code, short fibre content band.

The type code for cotton of sterile seeds is 'RC'. The colour grade codes are '1' for grade one and '2' for grade two. The length grade code is '24' to '27' for lengths from 24 mm to 27 mm. The short fibre content bands one and two are shown by the ordinal figures '1' and '2'.

Example: RC2251 means grade two cotton of sterile seeds, length 25 mm, short fibre content band 1.

4.3 Technical requirements for the colour grade and the short fibre content of cotton of sterile seeds

The technical requirements for the colour grade and the short fibre content of cotton of sterile seeds are given in Table 1.

Grade one is described as white in colour, slightly light grey, not bright; or milky white with a light yellow cast, somewhat bright. Within grade one, short fibre content band 1 is a short

fibre percentage of not more than 30 per cent and band 2 is more than 30 per cent.

Grade two is described as grey-white or grey and dull; grey-white with a dull yellow cast, with light yellow spots; dull yellow with visible grey spots; or yellow in colour and not bright. Within grade two, short fibre content band 1 is a short fibre percentage of not more than 35 per cent and band 2 is more than 35 per cent.

4.4 Length

The length is graded in steps of 1 mm, as follows: 24 mm, comprising 24.9 mm and below; 25 mm, comprising 25.0 mm to 25.9 mm; 26 mm, comprising 26.0 mm to 26.9 mm; 27 mm, comprising 27.0 mm and above.

4.5 Moisture regain

The conditioned moisture regain of cotton of sterile seeds is 8.5 per cent.

4.6 Trash content

The standard trash content of cotton of sterile seeds is 5.0 per cent.

5.1 Preparation of the sample

5.1.1 Sampling of baled cotton of sterile seeds is carried out by drawing one bale out of every ten; a quantity of fewer than ten bales counts as ten bales.

5.1.2 After the top of the bale has been opened, the surface layer of cotton of sterile seeds is discarded and sample A is drawn, each sample having a total mass of not less than 300 g, to form the inspection lot sample. Sample B is drawn at a depth of 10 cm to 15 cm from the surface of the bale, each sample being about 100 g. Sample A is used for the inspection of the colour grade, the length and the foreign fibre; 50 g drawn at random from several points of the A lot sample forms one laboratory sample for the inspection of the short fibre content, and 600 g drawn at random from several points of the A lot sample forms one laboratory sample for the inspection of the trash content. Sample B is used for the inspection of the moisture regain; it forms the moisture regain inspection lot sample and, once drawn, shall be placed at once in a closed container and inspected within 24 h.

5.2 Quality inspection

5.2.1 Inspection of the colour grade. 5.2.1.1 The colour grade is inspected by the sensory method, the colour grade being determined by comparison with the written description of the colour characteristics. 5.2.1.2 The inspection of the colour grade shall be carried out in a cotton classing room; the classing room shall comply with GB/T 13786 or shall have north-facing daylight. 5.2.1.3 The colour grade of each sample of the A lot sample is inspected one by one and the results recorded. 5.2.1.4 The percentage accounted for by