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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17596-1998

**Textiles. Commercial laundering procedure for textile fabrics
prior to flammability testing**

(English Translation)

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1 Scope

This standard specifies test methods for repeated commercial laundering of fabrics.

This standard is applicable to assess the effect of repeated commercial laundering on the burning performance of fabrics.

2 Reference standards

The clauses contained in the following standards constitute the clauses of this standard by being quoted in this standard. At the time of publication, the editions indicated were valid. All standards will be revised; all parties using this standard should explore the possibility of using the latest version of the following standards.

GB/T 8629-1988 Textiles - Domestic washing and drying procedures for textile testing (neq ISO 6330:1984)

GB/T 8632-1988 Textiles - Woven fabrics - Determination of dimensional change on commercial laundering near the boiling point (neq ISO 675:1979)

3.1.1 Automatic washing machine (Type A)

There is a horizontal drum with a reverse action; the drum diameter is 480 ~

610 mm; it is equipped with 3 or 4 lifting blades; the speed is 30 ~ 52 r/min, which reverses every 10 ~ 20 r. The liquid level can be controlled to be high and low. The capacity is 0.3 V₁ and 0.54 V₁, wherein V₁ is the volume of the drum (see 5.1). There must be a device for heating and controlling the water temperature. The automatic washing machine shall be in accordance with the procedures as specified in Chapter 6 and Chapter 7.

Note 1: The scope of machines allowed by this specification is larger than that

6.3 Inject cold soft water to the high-water level; wash for 3 minutes; drain it.

Repeat 3 times to wash 4 times in total. Drain it for 6 min.

6.4 Repeat washing, cleaning and draining 11 times to a total of 12 times.

Note 3: If the specified number of laundering cannot be successfully completed, the retention time with moisture after draining is up to 18 h.

6.5 According to the washing instructions of the material, dry the specimen

according to one of the drying procedures as specified in GB/T 8629. Press- iron it at an appropriate temperature (see 3.5) to eliminate wrinkles (if the material can be press-ironed).

7 Gentle laundering procedures of automatic washing

machine (Type A)

7.1

Put the load m₁ of the specified components (see Chapter 4) as calculated according to 5.2 in the washing machine (3.1.1); add 15 ~ 40 °C soft water to the low water level under gentle stirring. At the same time, add the detergent (see 3.4) m₂ as calculated according to 5.3.

7.2

If the inlet water temperature is lower than 37 °C, heat to 40 °C ± 3 °C without stirring; then gently stir for 15 min ± 0.5 min; drain it.

7.3

Inject cold soft water to the high water-level; wash for 3 minutes; drain it.

Repeat 3 times to 4 times in total. Drain it for 3 min.

7.4

Repeat washing, cleaning and draining 11 times to a total of 12 times.

Note 4: If the specified number of laundering cannot be successfully completed, the retention time with moisture after draining is up to 18 h.

7.5 According to the washing instructions of the material, dry the specimen

according to one of the drying procedures as specified in GB/T 8629. Press- iron it at an appropriate temperature (see 3.5) to eliminate wrinkles (if the material can be press-ironed).

8 Standard laundering program of wheel washing

machine (w type)

8.1 Put the load m1 of the specified components calculated according to 5.2

(see Chapter 4) in the washing machine (3.1.2); add cold soft water to the low water level; add the detergent (see 3.4) m2 calculated according to 5.3.

8.2 Start the machine and inject steam to raise the temperature to $75\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ (see note 5); keep it at $75\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ for at least 15 min. The total laundering time including the temperature rise is $30\text{ min} \pm 3\text{ min}$. Drain it.

Note 5: Due to condensation of water vapor during heating, the water level will increase, so the final test solution to load ratio will be slightly higher than the initial 5:1.

8.3 Add cold soft water to high water level; wash for 3 minutes and drain. Repeat 3 times to wash 4 times in total.

8.4 Repeat laundering and washing 11 times to a total of 12 times.

8.5 According to the washing instructions of the material, dry the specimen

according to one of the drying procedures as specified in GB/T 8629. Press- iron it at an appropriate temperature (see 3.5) to eliminate wrinkles (if the material can be press-ironed).

9 Gentle laundering procedure of wheel washing

machine (w type)

9.1

Put the load m1 of the specified components (see Chapter 4) as calculated according to 5.2 in the washing machine (3.1.2); add cold soft water to the low water level; add the detergent

(see 3.4) m² as calculated according to 5.3.

9.2

Start the machine and inject steam to raise the temperature to 40 °C ± 3 °C (see note 6); keep it at 40 °C ± 3 °C for at least 15 minutes. Drain it.

Note 6: The water level will increase due to condensation of water during the heating process, so the ratio of liquid to load will be slightly higher than the initial

5:1.

9.3

Add cold soft water to high water level; rinse for 3 minutes and drain. Repeat 3 times to wash 4 times in total.

9.4

Repeat washing and laundering 11 times to a total of 12 times.

9.5 According to the washing instructions of the material, dry the specimen

according to one of the drying procedures as specified in GB/T 8629. Press- iron it at an appropriate temperature (see 3.5) to eliminate wrinkles (if the material can be press-ironed).

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