

Colour fastness/Grade ≥	To washing (Change in colour, staining)		4	3-4	3
	To water(Change in colour, staining)		4	3-4	3
	To perspiration	Change in colour	4	3-4	3
		staining	4	3	3
	To dry rubbing		4	3-4	3
To wet rubbing		3-4	3	3	
Pilling /Grade ≥		3-4	3	3	
Bursting strength /N ≥		250			
Dimensional stability to washing / % ≥	Lengthwise	-3.0	-5.0	-7.0	
	Widthwise	-3.0	-5.0	-7.0	
Electromagnetic shielding percentage of fabric / % ≥		99.99	99.9		
Appearance quality after washing		No obvious color changes on the whole, no bubbling or falling off is allowed on the printed part , no serious unevenness in the sewing thread of the embroidery part , no detachment of the applique part. , no detachment or rust of the accessories. Seriously effect on appearance is not allowed.			
Note: Colour fastness is not required for greige and bleached product.					

5.3.2 Pilling is only applicable to the face side of product and not applicable to product with sanding sanded, fleeced and flocked or lace products. The outer layer shall be assessed in multi-layer products .

5.3.3 Bursting strength is not applicable for elastic fabric, and products with hollow ,burn-out structural.

Note: Elastic fabric refers to fabric containing elastic fiber or rib knit fabric.

5.3.4 The dimensional stability to washing in widthwise is not applicable for elastic fabric, the dimensional stability is not required for short pants (skirts), and dimensional stability to washing in wrinkled direction is not required for pleated products.

5.3.5 Electromagnetic shielding percentage of fabric is not required only when electromagnetic shielding is specified in the information supplied by the manufacture. When only part of the product specified the electromagnetic shielding performance, test the specified part. If the product is a double-layer or multi-layer structure, superimpose the test as a whole.

5.3.6 Whether the electromagnetic shielding product is washable or not should be indicated in the manufacture's instructions and the color fastness to washing, dimensional stability to washing and appearance quality after washing should be assessed only for washable products. If there is no washing information indicated, it will be evaluated according to the washable product.

5.3.7 The assessment index of color fastness for the knitted maternity underwear product can be increased by half grade .

5.4 Appearance quality requirements

5.4.1 Classification requirements of appearance defect shown in Table 2.

Table 2 Classification requirements of appearance defect

Name of defect	Superior grade	First grade	Qualified grade
Colour difference	4 between main fabrics, 3-4 between main fabrics and accessories		3-4 between main fabrics 3 between main fabrics and accessories
Uneven stitching line ≤	0.3 cm for main parts and top stitching 0.5 cm for others		0.5 cm
Skewness(stripe and check products) (%) ≤	4.0	5.0	6.0
Oil stained sewing thread ≤	Not allowed	Not allowed in collar, placket, pocket	Allowed for slight in collar, placket, pocket
Yellowing, discoloration by ironing	Not allowed		
Unsmooth stitching	Not allowed	Allowed for slight	Allowed for obvious, and not allowed for severe
Missing of steps or errors in the manufacture procedure, components missed or damaged	Not allowed		
<p>Note 1: The defects that are not listed in the table are assessed according to GB/T 8878.</p> <p>Note 2: The appearance defects degree should be determined according to GSB 16-2500 .</p> <p>Note 3: The main parts refer refer to 2/3 of the top from the front, pants have no main parts</p> <p>Note 4: Slight: Not obvious, it can be recognized with careful observation Obvious: Easy to be recognized, but not affecting the overall appearance. Severe: Easy to be recognized, while affecting the overall appearance.</p>			

5.4.2 The dimensional deviations of specifications are shown in Table 3.

Table 3 Dimensional deviations of specifications

Unit: cm

Type	Superior grade	First grade	Qualified grade	
Lengthwise (garment length、 sleeve length、 pant length、 skirt length)	60 cm or more	±1.0	±2.0	±2.5
	Less than 60 cm	±1.0	±1.5	±2.0
Widthwise (hem girth, abdominal girth)	±1.0	±1.5	±2.0	

5.4.3 Dimensional differences of symmetrical parts are shown in Table 4

Table 4 Dimensional differences of symmetrical parts

Unit: cm

Item	Superior grade ≤	First grade ≤	Qualified grade ≤
≤5	0.3	0.4	0.5
>5 and ≤15	0.6	0.8	1.0
>15 and ≤76	0.8	1.0	1.2
>76	1.2	1.5	1.5

5.4.4 Pant crotch depth ≥20cm (not including underwear)

6 Test method

6.1 Inherent quality inspection

6.1.1 Formaldehyde content

It is tested according to GB/T 2912.1.

6.1.2 pH value

It is tested according to GB/T 7573.

6.1.3 Odour

It is tested according to GB18401.

6.1.4 Decomposable carcinogenic aromatic amine dye

It is tested according to GB/T 17592.

6.1.5 Fiber content

It is tested according to GB/T 2910(all parts)、FZ/T 01057(all parts)、FZ/T 01026、FZ/T 01095、FZ/T 01101.

6.1.6 Colour fastness to washing

It is tested according to A(1) method of GB/T 3921—2008.

6.1.7 Colour fastness to water

It is tested according to GB/T 5713.

6.1.8 Colour fastness to perspiration

It is tested according to GB/T 3922.

6.1.9 Colour fastness to rubbing

It is tested according to GB/T 3920, and only test the lengthwise of the product.

6.1.10 Pilling

It is tested according to the GB/T 4802.1-2008, method E, while the classification is assessed from the style of the fabrics and the shape of naps in accordance with GSB 16-1523 .

6.1.11 Bursting strength

It is tested according to GB/T 19976-2005, and the diameter of the steel ball is (38±0.02) mm.

6.1.12 Dimensional stability to washing**6.1.12.1 Measured position**

For the top and the skirt ,the calculation basis of lengthwise is the average of the four measured values include left and right sides on both front and back side of the products, the calculation basis of widthwise is the measured values of the back . For the pant, the caluation basis of lengthwise is the measured values of length of pants on the left and right leg and there are two widthwise requirements for pant , one of which is abdominal girth and another is middle leg width average of left and right legs . Marking is made on the products when it was measured so that it can be measured after washing. The measured positions of top are shown in figure 1, the measured positions of skirt are shown in figure 2, the measured positions of sling skirt(shirt) are shown in figure 3, the measured positions of pant are shown in figure 4.

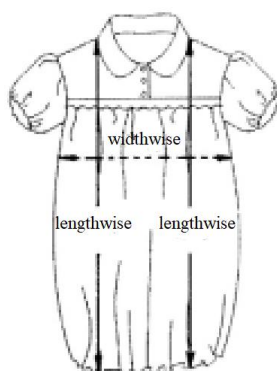


Figure 1 Measuring positions of top before and after washing

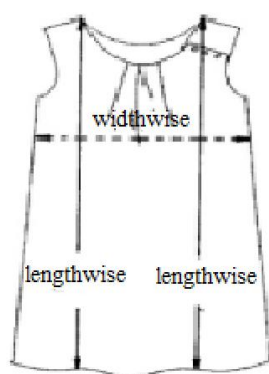


Figure 2 Measuring positions of skirt before and after washing

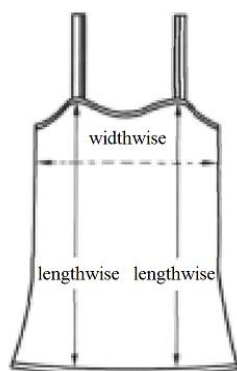


Figure 3 Measuring positions of sling skirt(shirt) before and after washing

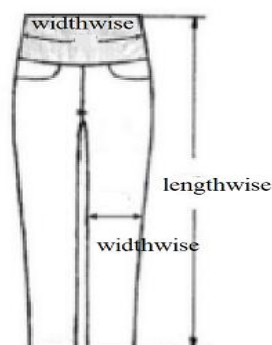


Figure 4 Measuring positions of pant before and after washing

6.1.12.2 The instructions of measurement

Shown in Table 5.

Table 5 The instructions of measurement of washing size

Category	Part	Method of measurement
Top, Skirt	Lengthwise	Vertical measure from the highest point of the shoulder seam to bottom edge of hem, sling skirt (shirt) measure from sling connection to bottom edge of hem.
	Widthwise	Across measure at 5cm down from the intersection point of armhole seam and side seam
Pant	Lengthwise	Vertical measure along the side seam from top waistband down to pant bottom
	Widthwise	Across measure at the midpoint of the line from crotch to bottom edge of hem
	Widthwise	Arc measure at 2/3 from crotch bottom to the top waistband (calculated by circumference)

6.1.12.3 Washing and drying

Washing and drying are tested by 4N program of type A washing machine according to GB/T 8629—2017 . Product marked washable electromagnetic shielding performance is washed by 4H program of type A washing machine .Select “reference detergent 3” as the detergent and line dry as the type of drying.

3 pieces of products are washed. Measuring before and after the test of dimensional stability to washing have to be carried out in an atmosphere of $(20\pm 2) ^\circ\text{C}$, $(65\pm 5) \%$ for relative humidity at least 4 hours.

6.1.12.4 Result calculation

Dimensional stability to washing in lengthwise or widthwise is calculated according to formula (1), negative sign (-) indicates a dimensional shrinkage, and the positive sign (+) indicates a dimensional elongation. Taking the arithmetic mean of all the samples as the test result. If there are both shrinkage and elongation in test results, take the arithmetic mean value of two samples of shrinkage and elongation as the test result. Round the results to one decimal according to GB/T8170.

$$A = \frac{L_1 - L_0}{L_0} \times 100\% \quad \dots\dots\dots(1)$$

Where:

A- Dimensional stability to washing in lengthwise or widthwise;

L_1 - Average in lengthwise or widthwise after washing (round to 0.1 cm), unit is centimeter(cm);

L_0 - Average in lengthwise or widthwise before washing (round to 0.1 cm), unit is centimeter(cm).

6.1.13. Electromagnetic shielding percentage of fabric

6.1.13.1 Treatment of fabric

If the electromagnetic shielding product is washable ,perform 5 cycle of 4H program adding reference detergent once according to GB/T 8629—2017. After line drying perform conditioning at least 4 hours in the atmosphere of (20 ± 2) °C, (65 ± 5) % for relative humidity . One piece should be tested.

If electromagnetic shielding product is unwashable, perform conditioning at least 4 hours in the atmosphere of (20 ± 2) °C, (65 ± 5) % for relative humidity before the test. One piece should be tested.

6.1.13.2 Shielding effectiveness

It is tested according to SJ 20524,the range of electromagnetic waves is 30 MHz~3000 MHz. Shielding effectiveness percentage of fabric is calculated according to formula (2)

$$SE_{\%}=(1-10^{-SE_{dB}/10})\times 100\%.....(2)$$

Where:

$SE_{\%}$ ——: Shielding effectiveness percentage of fabric, %

SE_{dB} ——: Shielding effectiveness of fabric, dB

6.1.14 Appearance quality after washing

Washing and drying are carried out according to test method of dimensional stability to washing, and evaluation combined with table 1. Assessing change in colour is carried out according to test method GB/T 250.

6.2 Inspection for appearance quality

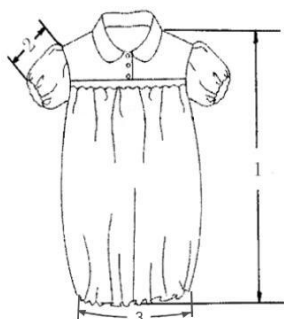
6.2.1 Test conditions of inspection for appearance quality

6.2.1.1 Lighting with illumination not less than 600lx is normally used in appearance evaluation. If use the natural light indoor, the north sky light shall prevail.

6.2.1.2 During the inspection, the products shall be spread on the inspection table with a layer of white cloth laid on the table. The distance between the vision and the product is more than 35cm.

6.2.2 Measuring position and method

6.2.2.1 The measuring positions of top are shown in Figure 5.



Instructions:

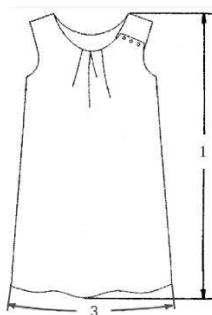
1——Garment length;

2——Sleeve length;

3——Hem girth.

Figure 5 Measuring positions of top appearance

6.2.2.2 The measuring positions of skirt are shown in Figure 6.



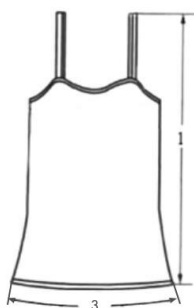
Instructions:

1——Skirt length;

3——Hem girth.

Figure 6 Measuring positions of skirt appearance

6.2.2.3 The measuring positions of sling skirt (shirt) are shown in Figure 7.



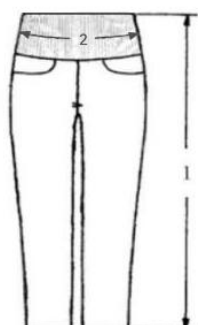
Instructions:

1——Skirt (garment) length;

3——Hem girth.

Figure 7 Measuring positions of sling skirt (shirt) appearance

6.2.2.4 The measuring positions of the pants are shown in Figure 8.



Instructions:

- 1—Pant length;
- 2— Abdominal girth.

Figure 8 Measuring positions of pant appearance

6.2.2.5 The measuring requirements for each part are shown in Table 6.

Table 6 The requirement of measuring positions of garments

class	number	Parts	Method of measurement
Top/ Skirt	1	Garment length/skirt length	Vertical measure from the highest point of the shoulder seam to bottom edge of hem, sling skirt (shirt) measure from the highest point of sling to bottom edge of hem.(Adjustable sling and elastic sling are measured to the bottom from the sling connection to bottom edge of hem)
	2	Sleeve length	Set-in sleeve : Measure from the intersection point of shoulder seam and armhole seam to the cuff Raglan sleeve: Measure from the middle of the back collar to the cuff
	3	Hem length	Arc measure the hem of the garment (calculated by the circumference)
Pant	1	Pant length	Vertical measure from the top waistband to the pant bottom along the side seam
	2	Abdominal girth	Arc measure at 2/3 from crotch bottom to the top waistband (calculated by circumference)

6.2.3 Colour difference

It is tested according to GB/T 250.

6.2.4 Measurement of crotch depth

Put the pant face up on the table and measure vertically from the bottom of the crotch to the top of the waistband with inspection ruler.

7 Sampling rules

7.1 Sampling amount

7.1.1 For the appearance quality, 1%- 3% from each batch of products are randomly not less than 20 pieces.

7.1.2 For inherent quality, 4 pieces of samples are randomly taken according to variety and color, and the number of pieces can be increased when insufficient. There should be no defect affecting the test in the product.

7.2 Inherent quality for batch

Evaluation the sample of inherent quality according to 5.3, if any one of the required items is disqualified, this batch is judged as unqualified. Among them, if the color fastness item do not meet the requirements, this batch of product is judged as unqualified according to the color. Widthwise dimensional stability to washing of knitted maternity pant is judged as qualified when both of widthwise dimensional stability to washing are qualified. Otherwise, it is judged as unqualified. For appearance quality after laundering, this batch of products is judged as qualified if at least two or more of them are qualified. Otherwise, this batch is judged as unqualified.

7.3 Appearance quality for batch

7.3.1 The non-conformity rate of appearance quality is calculated according to the variety and color. If the rate of non-conformity is not more than 5%, this batch of product is judged as qualified. If the rate of non-compliance is above 5%, this batch of product is judged as unqualified.

7.3.2 Marking errors in inner packaging are calculated on a piece-by-piece basis, no error in outer packaging is allowed.

7.4 Other quality for batch

Products that seriously affect the appearance and performance are not allowed.

7.5 Judgement for single piece

If the number of product inspections is less than the number of samples for batch determination, the appearance quality and internal quality shall be determined only on the inspected samples according to 7.2, 7.3, 7.4 and the inspection report shall be indicated

7.6 Re-inspection

7.6.1 If either party has any objection to the result of the inspection, it may request the re-inspection.

7.6.2 The results of re-inspection shall be carried out in accordance with the provisions of 7.2, 7.3, 7.4, and 7.5 of this standard, and the evaluation shall be subject to the re-inspection results.

8 Product instructions, packaging, transportation and storage

8.1 Product instructions are implemented in accordance with GB/T 5296.4. Maternity garment with electromagnetic radiation shielding performance should clearly indicate "electromagnetic radiation shielding" in the product instructions indicating whether it is washable and other related words.

8.2 The packaging is implemented in accordance with GB/T 4856 or the agreement.

8.3 Product transportation shall be moisture-proof, fireproof and pollution-proof.

8.4 The product shall be stored in a cool, ventilated, dry, clean warehouse, and attention should be paid to moth proof and mould proof