

## China Standard GB/T 14272-2021 Down Garments Published on March 9th, 2021 – To Be Implemented April 1st, 2022

GB/T 14272-2021 superseded GB/T 14272-2011 and will be put into implementation from April 1<sup>st</sup> 2022. Major changes include but not limited to:

- Down filling with down cluster content labeling;
- Add appearance after washing and colourfastness to cross staining on contrast colours requirements;
- Down proofness test is changed to tumbling box method with different requirements;
- Fill power of down filling adopts steam conditioning test method;
- Add AP & AP<sub>n</sub>EO restriction on down filling. Please beware that there is no exemption in China on new textile articles produced, without the use of NPEO, exclusively from recycled textiles like the way EU REACH Annex XVII allows.

The main differences between these 2 editions are as shown in the following table:

No.	Item	GB/T 14272-2011	GB/T 14272-2021	Note
1	Scope	This standard is applicable to the garments with textile woven fabrics as the main shell and down as the main fillings.	This standard is applicable to the garments with textile woven fabrics as the main shell and down as the fillings. <b>Other fillings can be used in small parts such as top flies, pocket flaps, hoods and collars.</b> <b>Not applicable to garments with down and fiber blended fillings, or garments with down and fiber respectively filled in different layers or zones</b>	Revised the scope
2	Terminology	Listed all the terms related to down and feather.	<b>Direct citation to GB/T 17685 and GB/T 15557.</b>	Added two terms "down garments" and "filling shell".
3	Instruction of use	Instruction of use shall comply with GB 5296.4 and GB 18401. And filling name, <b>down content</b> and net weight of down & feather fillings shall be labeled.	Instruction of use shall comply with GB 5296.4 and <b>GB 31701</b> . The filling name, <b>down cluster content</b> and net weight of down & feather fillings shall be labeled. <b>The labeled down cluster content shall follow the increments in Table A.1 of Annex A.</b>	Down colour is no longer required; "% down content" is updated to "% down cluster content" in labelling; Added the requirement for the increments of labeled down cluster content; GB 31701 shall be labeled for children and infants down garments.
4	Raw materials	Linings: the fabric directly contacting down shall be down-proof.	<b>Lining, and padding covers that are quilted with down shall be down-proof.</b>	/
5	Requirements	Without AP/ AP <sub>n</sub> EO requirement	<b>NP+OP&lt;10mg/kg; NP+OP+NP<sub>n</sub>EO+OP<sub>n</sub>EO&lt;100mg/kg Only applicable to down fillings, n=2-16 for AP<sub>n</sub>EO</b>	Added restrictive requirements for AP and AP <sub>n</sub> EO.
		<b>* Colourfastness to washing</b> (for adults and children-shell): Pass: Colour Change:≥ Grade 3-4, <b>Colour Staining: ≥ Grade 3</b>	<b>Colourfastness to washing</b> (for adults and children-shell): Pass: Colour Change:≥ Grade 3-4, <b>Colour Staining: ≥ Grade 3-4</b>	Higher requirements for colourfastness to washing.
		<b>Colourfastness to washing</b> (for infants-shell and lining) follow FZ/T 81014: Pass: <b>Colour Change and colour staining:≥ Grade 3</b>	<b>Colourfastness to washing</b> (for infants-shell and lining): Pass: <b>Colour Change and colour staining:≥ Grade 3-4</b>	
<b>* Colourfastness to water</b> (for adults and children-lining): High: <b>colour staining≥ Grade 4</b> Class 1: <b>colour staining ≥ Grade 3-4</b> Pass: colour staining ≥ Grade 3	<b>Colourfastness to water</b> (for adults and children-lining): High & Class 1 & Pass: <b>colour change and colour staining ≥ Grade 3 (GB 18401 Category C)</b>	Revised the requirements for colourfastness to water.		
<b>Colourfastness to water</b> (for infants-shell and lining) follow FZ/T 81014: High: colour change and colour staining≥ Grade 4 Class 1 & Pass: colour change and colour staining ≥ Grade 3-4	<b>Colourfastness to water</b> (for infants-shell and lining): High: <b>colour change≥ Grade 4-5,</b> colour staining≥ Grade 4 Class 1: <b>colour change ≥ Grade 4,</b> colour staining ≥ Grade 3-4 Pass: colour change and colour staining ≥ Grade 3-4			

\* For silk products following GB/T 14272-2011, colourfastness requirements comply with GB/T 18132 instead.

No.	item	GB/T 14272-2011	GB/T 14272-2021	Note
5	Requirements	<p><b>*Colourfastness to wet rubbing</b>(for adults and children-shell): Pass: <math>\geq</math> <b>Grade 2-3</b> For raised, brushed, flocked shell fabrics, colourfastness to wet rubbing can be a half grade lower than above requirement.</p>	<p><b>Colourfastness to wet rubbing</b>(for adults and children-shell): Pass: <math>\geq</math> <b>Grade 3</b> For raised, brushed, flocked, <b>or dark</b> shell fabrics, colourfastness to wet rubbing can be a half grade lower than above requirement.</p>	Revised the requirements for colourfastness to wet rubbing.
		<p><b>*Colourfastness to perspiration</b> (for adults and children-shell and lining):  High &amp; Class 1 &amp; Pass: colour change and colour staining <math>\geq</math> Grade 3</p>	<p><b>Colourfastness to perspiration</b> (for adults and children-shell): <b>High: colour change and colour staining <math>\geq</math> Grade 3-4</b> Class 1 &amp; Pass: colour change and colour staining <math>\geq</math> Grade 3</p> <p><b>Colourfastness to perspiration</b> (for adults and children-lining): High &amp; Class 1 &amp; Pass: colour change and colour staining <math>\geq</math> Grade 3</p>	Revised the requirements for colourfastness to perspiration.
		<p><b>*Colourfastness to light</b> (for adults and children-shell): High: <math>\geq</math> Grade 4 Class 1: <math>\geq</math> Grade 3-4 Pass: <math>\geq</math> Grade 3</p> <p><b>Colourfastness to light (for infants-shell): No such requirement</b></p>	<p><b>Colourfastness to light</b> (for adults, children and infants-shell): High (all colours): <math>\geq</math> Grade 4 <b>Class 1: Dark colours <math>\geq</math> Grade 4, light &amp; Fluorescent colours <math>\geq</math> Grade 3</b> Pass (all colours): <math>\geq</math> Grade 3</p>	Revised the requirements for colourfastness to light.
		<p>Colourfastness to cross staining on contrast colours No such requirement</p>	<p><b>Colourfastness to cross staining on contrast colours (shell):</b> <b>High: <math>\geq</math> Grade 4-5</b> <b>Class 1 &amp; Pass: <math>\geq</math> Grade 4.</b> <b>Only applicable for product with dark and light colours.</b></p>	Added Colourfastness to cross staining on contrast colours for shell.
		<p><b>Seam slippage: <math>\leq 0.4</math> cm</b></p> <p>Report if fabric rupture, fabric tear or stitch breakage happens during test; if slippage happens, rated as FAIL,</p>	<p><b>Seam slippage:</b> <math>\leq 0.6</math> cm (with filling padding); <math>\leq 0.4</math> cm (without filling padding)</p> <p><b>For down garments with filling padding, the seam slippage is only required for shell and lining which are not quilted together with down; Decorative outmost layer of fabric is not required; Rated as FAIL if yarn slippage, fabric tear or stitch breakage happens.</b></p>	Revised the requirement for seam slippage.
		<p><b>Downproofness:</b> High: <math>\leq 5</math> fibers Class 1: <math>\leq 15</math> fibers Pass: <math>\leq 50</math> fibers</p> <p>Only required for garment fabric with direct contact to down &amp; feather.</p>	<p><b>Downproofness:</b>  <b>High: <math>\leq 40</math> fibers/m<sup>2</sup></b> <b>Class 1: <math>\leq 70</math> fibers/m<sup>2</sup></b> <b>Pass: <math>\leq 120</math> fibers/m<sup>2</sup></b></p>	Revised the requirements for Downproofness. (Test method has been revised)
		<p>Safety requirement for drawstring on children tops: Comply with <b>GB/T 22702</b></p>	<p>Safety specifications for cords and drawstrings on infants and children's clothing: Comply with <b>GB 31071</b></p>	Remove reference to GB/T 22702
		<p>Safety specifications for cords and drawstrings on children's clothing: Comply with <b>GB/T 22705</b></p>		Remove reference to GB/T 22705
		<p>Cords sewing strength: comply with <b>FZ/T 81014</b></p>	/	Safety of infants and children products comply with GB 31701
		<p>Snap and non-detachable trim attachment strength: comply with <b>FZ/T 81014</b></p>	<p>Snap and non-detachable trim attachment strength: comply with <b>GB 31701</b></p>	
<p>Without appearance after washing requirement</p>	<p><b>Appearance after washing:</b> <b>Appearance quality requirement shall comply with Table 13 of GB/T 21295-2014;</b> <b>Color change <math>\geq</math> Grade 4.</b></p>	Added the requirements for appearance after washing.		

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No.	item	GB/T 14272-2011	GB/T 14272-2021	Note
5	Requirements	<b>Down quality:</b> a. Tolerance for down cluster content: not defined b. Content of down fiber + feather fiber (%): not defined c. Fill power: see Table A.1 in Annex A of GB/T 14272-2011; d. Oxygen Number: ≤10.0mg/100g e. Turbidity/cleanliness: ≥450 mm f. Fat & oil: ≤1.3% g. Down colour & colour down and feather: down colour shall be labeled; the content of colour down and feather for white down ≤1.0% (down content 50%: ≤1.5%) h. Odour: rated as Grade 0, Grade1, Grade 2, or Grade 3; Grade 2 or above is required. i. Microbial hygienic requirements: required, if oxygen number >10 mg/100g j. moisture content: ≤13%	<b>Down quality:</b> a. Tolerance for down cluster content: ≥-5% b. Content of down fiber + feather fiber (%): ≤10% (down cluster content ≤90%), ≤5% (down cluster content 95%) c. Fill power: requirements was adjusted; see Table A.1 in Annex A of GB/T 14272-2021 d. Oxygen Number: ≤ 5.6 mg/100g e. Turbidity/cleanliness: ≥ 500 mm f. Fat & oil: ≤1.2% g. Down colour & colour down and feather: down colour is not required in label; the content of colour down and feather for white down claimed in label ≤1.0% h. Odour: rated as Pass or Fail only; i. Microbial hygienic requirements: Not mentioned but oxygen number is no longer a conditional indicator for microbial test. j. moisture content: Not mentioned	Revised the requirement for down quality.
6	Methods	<b>Down quality:</b> Annex C of GB/T 14272-2011.	<b>Down quality:</b> GB/T 10288-2016. Method A of GB/T 10288-2016 for Turbidity; Annex C of GB/T 14272-2021 for fill power based on steam conditioning method.	The test method for fill power was changed to steam conditioning method.
		<b>AP and AP<sub>n</sub>EO:</b> No such requirements	<b>AP and AP<sub>n</sub>EO:</b> They were determined by liquid chromatography-mass spectrometry (LC-MS) based on GB / T 23322-2018.	Added the test method for AP and AP <sub>n</sub> EO.
		<b>Colorfastness to light:</b> GB/T 8427-2008 Method 3	<b>Colorfastness to light:</b> GB/T 8427-2019 Method 3, to 1 <sup>st</sup> Phase	Revised the test method for colourfastness to light.
		<b>Colourfastness to cross staining on contrast colours:</b> No such requirement	<b>Colourfastness to cross staining on contrast colours:</b> GB/T 31127-2014 Method A.	Added the test method for colourfastness to cross staining on contrast colours.
		<b>Seam slippage:</b> Tested according to Annex D and Section 5.5.10 of GB/T 14272-2011.	<b>Seam slippage:</b> Tested according to GB/T 21294 and Section 5.6.6 of GB/T 14272-2021.	Revised the fixed load in the test method.
		<b>Downproofness:</b> Rubbing test (Annex E of GB/T 14272-2011)	<b>Downproofness:</b> Garment tumble test (Annex D of GB/T 14272-2021)	Revised the test method for downproofness.
		<b>Appearance after washing:</b> No such requirements	<b>Appearance after washing:</b> according to the method described in GB/T 8629-2017, with washing procedure as 4N (4H for hand wash as labeled). Tighten up all zippers and all buttons before washing. Tumble drying is used in drying procedure, and the exhaust temperature shall be not higher than 60° C. The dried sample shall be gently patted by hand to make the filling evenly distributed. If the label indicates the product cannot be tumble dried, it shall be dried by line drying. The sample is washed and dried once.	Added the method for appearance after washing.

### How Does this Impact You? Contact Us to Discuss

Any comments and/or questions please contact your local customer service representative or email to:

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