

Product:	Bed Linen		
Scope:	Bed Linen (Such as Mattress Cover, Mattress Topper, Bed Sheet, Pillowcase and Bedspreads)	Protocol No.	TYCP-24404-NA
		Version	2.0
		Issue Date	15 Jan 2013
		Prepared by	GZ Technical Support Team
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NB: Where there is no applicable US or CN standard, Intertek has chosen the most relevant International standards to assess the product safety and performance. For undated references, the latest edition of the referenced document (including any amendments) applies.

Attribute	Citation	Requirement / Limit
For US Market		
Supplemental Protocol		
*† CA Prop 65 (Mandatory in state California)	Intertek Protocol	Consent Judgment of related court cases based on California Proposition 65.
*† CPSIA Supplemental	TYCP-00001-US	Shall comply with the applicable requirements.
*† Children's Products (Non-toy)	TYCP-16026-US	Shall comply with the applicable requirements.
Note: Additional cost, sample size & TAT may be required if testing to 1 or more supplemental protocol is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.		
Chemical Analysis		
*† Lead Content in Paint and Similar Surface Coating	16 CFR 1303 (Scope Widened)	Shall not contain Lead or Lead compounds in which the Lead content is in excess of 90ppm by weight of the total content
*† Toxic elements in Packaging material (if applicable)	Model Toxics in Packaging Legislation / State Legislation	The sum of Cadmium, Hexavalent Chromium, Lead and Mercury in package or packaging component shall be less than 100 ppm by weight.
* Nickel Release (for metal components)	EN 1811 / EN 12472	The rate of nickel release from the parts of these products coming into direct and prolonged contact with the skin should be less than 0.5µg/cm ² /week.
*pH value	AATCC 81	White: 5-7 Others: 6-8
Formaldehyde Spot test (Do below test directly if result is Positive)	ITS 416	Negative
* Formaldehyde Content	AATCC 112	For children less than 36 months, 20 ppm For children more than 36 months, 75 ppm
Physical Characteristics		
*† Fiber Content	AATCC 20/20A	±3% tolerance blends No tolerance for single fiber
Fabric Count	ASTM D3775 (for woven) / ASTM D3887 (for knit)	Report actual or +/-5.0% from claims
Yarn Count	ASTM D1059	Report actual or +/-5.0% from claims
Fabric Weight	ASTM D3776 (for woven) / ASTM D3887 (for knit)	Report actual or +/-5.0% from claims
Construction & Workmanship		
Workmanship	ASTM D 3990 Visual check	No Major Defects - Shall Demonstrate Good, Even Construction, With No Sharp Edges, Sharp Points, Discoloration, etc
Performance Test		
Flammability	ASTM D1230	Class 1
Dimensional stability to washing (Per care instruction)	AATCC 135/150 (3 cycles)	Woven: -4.0%/+3.0% Knitted: -6.0%/+5.0% Stretchable items : -7.0%(for stretchable direction only) /+3.0% (Woven) -7.0%(for stretchable direction only)/+5.0% (Knitted)

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Attribute	Citation	Requirement / Limit
Appearance to washing	Per Dimensional stability to washing	Satisfactory
Dimensional Stability to Dryclean (per care instruction or on request)	Commercial Dryclean (1 cycle)	Woven: $\pm 2.5\%$ Knitted: $\pm 3.0\%$ Stretchable items: $\pm 5\%$ for stretchable direction only
Appearance after Dryclean	Per Dimensional Stability to Dryclean	Satisfactory
Tensile strength (for woven)	ASTM D5034	30 lbs min
Seam Strength (for woven)	ASTM D1683	25 lbs min.
Bursting Strength (for knit)	ASTM D3786	40 lbs/in ² min.
Seam Bursting Strength (for knit)	ASTM D3786 (mod.)	35 lbs/in ² min.
Abrasion Resistance	ASTM D4966	10,000 rubs min.
Zipper Strength (For functional)	ASTM D2061	Chain Crosswise Strength: 50 lbs min. Top Stop: 20 lbs min. Puller attachment strength: 20 lbs min. Pull Twist-off Strength: 4 in-lbs
Snapping test (for functional)		
Snapping Force	AATCC/ASTM TS-013	2 lbs -8 lbs
Unsnapping Force	ASTM D4846	2 lbs -8 lbs
Colourfastness		
To washing	AATCC 61	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
To Dryclean (per care instruction)	AATCC 132	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
To Chlorine Bleach	AATCC/ASTM TS-001	Colour Change: 4.0 min.
To Non-Chlorine Bleach	AATCC/ASTM TS-001	Colour Change: 4.0 min.
To Water	AATCC 107	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.

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To Crocking	AATCC 8 / 116	Dry: 4 min. Wet: 2.5 min. <i>Raised surface (including Brushed, Sanded, Peached), Dark colors, Pigment Dyed and Pigment Printed:</i> Dry: 3.5 min. Wet: 2 min.
To Light	AATCC 16 (20 AFU)	Medium to dark colors: 4 min. Pastels, bright & neon colors: 3.5 min.
To Perspiration	AATCC 15	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
* To Urine (for children less than 36 months)	Intertek IHTM 044	Colour Change: Grade 4.0 min. Colour Stain: Grade 3.0 min.
Colorfastness to Saliva and Perspiration (for baby/children's item under 3 years old)	64 LFGB 82.10.1	Resistant to Saliva and perspiration

Labelling Requirement

†One Time Use Products Fair Packaging and Labeling Act OR All Other Products Uniform Packaging and Labeling Regulations	F.P. & L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	Manufacturer, packer, or distributor's name & address (city, state & zip)
		Product Identification Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).
†Country of Origin Marking	19 CFR 134.11	Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Must be visible at point of purchase.
†Fiber Content	16 CFR 303 / 300	Must be visible at point of sale & must comply with regulations (Textile Fibers Identification Act or Wool Products Labeling Act)
†RN# (Registered Number) or Manufacturer Name	FTC Visual Check	Verify presence and must comply with the Textile Fiber Product Identification Act.
Law Label / Stuffed Articles Bedding Tag (if applicable)	State Bedding Law	Verify presence and must comply with regulations
Care Instruction	16 CFR 423	Must be sewn in permanently and must comply with regulations (Care Labeling Rule)
Verify Label Claims (if any)	ITS-M0060	Must comply with all claims

For Canada Market

Chemical Analysis

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Attribute	Citation	Requirement / Limit
† Lead In Surface Coating (For children under 14 yrs of age)	CCPSA Surface Coating Materials Regulations section 7.2	Shall not exceed 0.009% (90mg/kg) by weight.
† Lead in accessible part (Contact with mouth)	CCPSA Consumer Products Containing Lead (contact with Mouth) Regulations	90 ppm in accessible part of consumer products. Consumer products mean: i. products, other than kitchen utensils, that are brought into contact with the user's mouth in the course of normal use. e.g. baby bibs, baby bottle nipples, soothers, etc. ii. products intended for use in play or learning by children under three years of age. e.g. toys of children under 3 yrs of age, etc. Accessible parts means any part of a consumer product containing lead that may be touched, licked, mouthed or swallowed in the course of the reasonably foreseeable use of the product.
pH value	AATCC 81	White: 5-7 Others: 6-8
Formaldehyde Spot test (Do below test directly if result is Positive)	ITS 416	Negative
* Formaldehyde Content	AATCC 112	For children less than 36 months, 20 ppm For children more than 36 months, 75 ppm
Flame Retardant for TRIS	CHPA R.S., c. H-3, Schedule I, Part I, Item 30	Not used
Physical Characteristics		
*† Fiber Content	CAN/CGSB-4.2 No. 14	Single fiber: No tolerance Blended fiber: +/- 5%
Fabric Count	CAN/CGSB-4.2 No. 6 (for woven) CAN/CGSB-4.2 No. 7 (for knit)	Report actual or +/-5.0% from claims
Yarn Count	CAN/CGSB-4.2 No. 5.2	Report actual or +/-5.0% from claims
Fabric Weight	CAN/CGSB-4.2 No. 5.1	Report actual or +/-5.0% from claims
Construction & Workmanship		
Workmanship	ASTM D 3990 Visual check	No Major Defects - Shall Demonstrate Good, Even Construction, With No Sharp Edges, Sharp Points, Discoloration, etc
† Sharp Points / Sharp Edges	Hazardous Products [Toys] Regulations C.R.C., c. 931	Shall have no sharp points / edges, other than those required for function. Modified = Expanded scope to other than toy products
† Small Parts	Hazardous Products [Toys] Regulations C.R.C., c. 931	The requirement of small parts for choking hazard applies to all Decorative and Functional items If the decorative or functional item fails attachment strength or appearance after laundering requirement, it will then be tested as a small part. If it can fit entirely within the specified small parts cylinder under a 1 lb. weight, then the item is classified as a small part (ingestion and /or aspiration hazard) and must fail.
Performance Test		

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† Flammability - General Wearing Apparel	Textile Flammability Regulations (SOR/2011-22)	Products tested in accordance with CAN/CGSB 4.2 No. 27.5 shall have a time of flame spread of <ul style="list-style-type: none"> Time of flame spread shall be greater than 7 seconds or Does not have a raised fibre surface; or Has a raised fibre surface and exhibits ignition or fusion of its base fibres
Dimensional stability to washing (Per care instruction)	CAN/CGSB-4.2 No. 58 (5 cycles)	Woven: -4.0% or +3.0% Knit: -6.0% or +5.0% Stretchable items : -7.0%(for stretchable direction only) /+3.0% (Woven) -7.0%(for stretchable direction only)/+5.0% (Knitted)
Appearance to washing	Per Dimensional stability to washing	Satisfactory
Dimensional Stability to Dryclean (per care instruction or on request)	Commercial Dryclean (3 cycle)	Woven: +/-2.5%, Knitted: +/-3.0% Stretchable item (along width/weft stretchable direction only) Woven: +/-5.0% Knitted: +/-5.5%
Appearance after Dryclean	Per Dimensional Stability to Dryclean	Satisfactory
Tensile strength (for woven)	CAN/CGSB-4.2 No. 9.2	30 lbs min
Seam Strength (for woven)	CAN/CGSB-4.2 No. 32.2	25 lbs min.
Bursting Strength (for knit)	CAN/CGSB-4.2 No. 11.1	40 lbs/in ² min.
Seam Bursting Strength (for knit)	CAN/CGSB-4.2 No. 11.1	35 lbs/in ² min.
Abrasion Resistance	ASTM D4966	10,000 rubs min.
Zipper Strength (For functional)	ASTM D2061	Chain Crosswise Strength: 50 lbs min. Top Stop: 20 lbs min. Puller attachment strength: 20 lbs min. Pull Twist-off Strength:4 in-lbs
Snapping test (for functional)		
Snapping Force	AATCC/ASTM TS-013	2 lbs -8 lbs
Unsnapping Force	ASTM D4846	2 lbs -8 lbs
Colourfastness		
To washing	CAN/CGSB-4.2 No. 19.2	Color Change: Print and Pigment: 3.5 min. Others 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.

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To Dryclean (per care instruction)	CAN/CGSB-4.2 No. 29.1	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
To Chlorine Bleach	CAN/CGSB-4.2 No. 19.2	Colour Change: Grade 4.0 min.
To Non-Chlorine Bleach	ISO 105 C09	Colour Change: Grade 4.0 min.
To Water	CAN/CGSB-4.2 No. 20	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
To Crocking	CAN/CGSB-4.2 No. 22	Dry: 4 min. Wet: 2.5 min. <i>Raised surface (including Brushed, Sanded, Peached), Dark colors, Pigment Dyed and Pigment Printed:</i> Dry: 3.5 min. Wet: 2 min.
To Light	CAN/CGSB-4.2 No. 18.3 (up to grade 4)	Medium to dark colors: 3-4 min. Pastels, bright & neon colors: 3 min.
To Perspiration	CAN/CGSB-4.2 No. 23	Color Change: Print and Pigment: 3.5 min. Others: 4 min. Color Stain: Dark colors, Pigment Dyed and Pigment Printed: 3 min Others: 3.5 min. Self-staining: 4 min.
* To Urine (for children less than 36 months)	Intertek IHTM 044	Colour Change: Grade 4.0 min. Colour Stain: Grade 3.0 min.
Colorfastness to Saliva and Perspiration (for baby/children's item under 3 years old)	64 LFGB 82.10.1	Resistant to Saliva and perspiration
Labelling Requirement		

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Attribute	Citation	Requirement / Limit												
†Labeling - Packaging	Consumer Packaging and Labeling Act, R.S. 1985, c. C-38 and Regulations, C.R.C., c. 417	<p>The net quantity declaration shall present on Principal Display Panel (PDP) in English and French, metric units.</p> <p>The numerical quantity shall be bold type with letter height based on the size of PDP (X):</p> <table border="0"> <tr> <td>Size of PDP</td> <td>Minimum letter height</td> </tr> <tr> <td>X ≤ 32 cm² (5 in²)</td> <td>1.6 mm (1/16 in)</td> </tr> <tr> <td>32 cm² < X ≤ 258 cm² (40 in²)</td> <td>3.2 mm (1/8 in)</td> </tr> <tr> <td>258 cm² < X ≤ 645 cm² (100 in²)</td> <td>6.4 mm (1/4 in)</td> </tr> <tr> <td>645 cm² < X ≤ 25.8 dm² (400 in²)</td> <td>9.5 mm (3/8 in)</td> </tr> <tr> <td>25.8 dm² (400 in²) < X</td> <td>12.7 mm (1/2 in)</td> </tr> </table> <p>All other information in the net quantity declaration (i.e. units of measurement statements, abbreviations, symbols, etc.) shall be shown in minimum 1.6 mm letter height.</p> <p>Product identification shall be shown on Principal Display Panel (PDP) in English and French, minimum 1.6 mm letter height.</p> <p>Dealer's name and principal place of business (address) shall be shown on any part of label except bottom, English or French, minimum 1.6 mm letter height.</p> <p>For imported goods, the name and address of the dealer outside Canada or the name and address of Canadian dealers shall be preceded by "imported by" ("importé par") or "imported for" ("importé pour"), unless a statement of geographic origin is located immediately adjacent to the name and address of a Canadian dealer, and shown with letter height at least as large as those used in the declaration of the Canadian dealer's principal place of business.</p>	Size of PDP	Minimum letter height	X ≤ 32 cm ² (5 in ²)	1.6 mm (1/16 in)	32 cm ² < X ≤ 258 cm ² (40 in ²)	3.2 mm (1/8 in)	258 cm ² < X ≤ 645 cm ² (100 in ²)	6.4 mm (1/4 in)	645 cm ² < X ≤ 25.8 dm ² (400 in ²)	9.5 mm (3/8 in)	25.8 dm ² (400 in ²) < X	12.7 mm (1/2 in)
Size of PDP	Minimum letter height													
X ≤ 32 cm ² (5 in ²)	1.6 mm (1/16 in)													
32 cm ² < X ≤ 258 cm ² (40 in ²)	3.2 mm (1/8 in)													
258 cm ² < X ≤ 645 cm ² (100 in ²)	6.4 mm (1/4 in)													
645 cm ² < X ≤ 25.8 dm ² (400 in ²)	9.5 mm (3/8 in)													
25.8 dm ² (400 in ²) < X	12.7 mm (1/2 in)													
†Fiber Content Label	Textile Labelling Act and Textile Labelling and Advertising Regulations, C.R.C., c. 1551	<p>Label must be legible and accessible to the consumer. Per Canadian Textile Labelling Act and Textile Labelling and Advertising Regulations, C.R.C., c. 1551, the permanency of the label depends on the type of article, as specified in Schedule I or III, of the Regulations. Refer to the Regulations for details.</p> <p>All fiber content information (generic names of fibers) must be in English and French.</p>												
†CA No. or Dealer Identity	Textile Labelling Act and Textile Labelling and Advertising Regulations, C.R.C., c. 1551	The CA number of the Canadian dealer or the name and full postal address under which the dealer normally carries out his business must be present on the fiber content label per Sections 11 and 12 of the Textile Labelling and Advertising Regulations.												
†Country of Origin	Canada Customs Tariff, Marking of Imported Goods Regulations, SOR-94-10	Shall be present in English or French if not manufactured in Canada.												

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The Language of Inscription (mandatory in Quebec)	The Charter of French Language, Title I, Chapter VII, Clause 51 & Regulations adopted under the Charter of French Language	Every inscription on the following shall be drafted in French: - product container or wrapping - document or object supplied with it (e.g. directions for use, warranty certificates) No inscription in another language may be given greater prominence than that in French. For exceptions, check the following webpage:- http://www.olf.gouv.qc.ca/english/regulations/reg_business.html#div1
Labeling of Pre-Packaged Consumer Textile Articles	Textile Labelling Act and Textile Labelling and Advertising Regulations, C.R.C., c. 1551	Per Section 21 of the Textile Labeling and Advertising Regulations, C.R.C., c. 1551, if the textile article is sold in a wrapper, package or container and the fiber content label is clearly visible to the consumer, no further labeling is required. If the label is not visible, the information to be shown on the label must be repeated on the wrapper, package or container in the prescribed manner.
Care Label	National Standard of Canada, Care Labeling of Textiles, CAN/CGSB-86.1-2003 and Canadian Textile Test Methods CAN/CGSB-4.2	If Canadian care symbols are used, these must be presented in accordance with the National Standard of Canada, Care Labelling of Textiles, CAN/CGSB-86.1-2003. Care labels must be permanently attached to the textile article.
Use Labeling	Visual Check	Use/care instructions that are clear and understandable shall be provided in language appropriate to destination countries.
Stuffed Articles (if applicable)	Technical Standard and Safety Act, 2000 - Ontario Regulation 218/01 - Quebec Regulation Respecting Stuffing and Upholstered and Stuffed Articles - The Public Health Act of Manitoba, C.C.S.M. c.P210 - Bedding - Upholstered and Stuffed Articles Regulation	Upholstered articles shall have a label in the required format, securely affixed in a conspicuous location to the stuffed article. Labels must be made of a white durable fabric with black printing and shall declare filling materials by generic name in descending order based on the volume of each filling material.

Remark: Additional tests may be incurred subject to the final samples reviewed by Intertek.

Key: *: Additional charge items †: Mandatory Requirement

Testing Charge & Sample Size & Turnaround Time

Packaging Charge (Net Price)	USD 350 for each market
Sample size	3 pieces of finished product per market (Additional Sample may be required for tests with additional charge.)
Turnaround time	5 working days

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Individual Charge (subject to client discount)		Additional Sample Size
a. CA Prop 65	Refer to CA Prop 65	Refer to CA Prop 65
b. CPSIA Supplemental	Refer to CPSIA Supplemental	Refer to CPSIA Supplemental
c. Children's Products (Non-toy)	Refer to Children's Products (Non-toy)	Refer to Children's Products (Non-toy)
d. Lead content test	USD 31 per result	Subject of actual sample
e. Toxics in packaging	USD 54 per material	0.5 gram of packaging material
f. Nickel Release	EN 1811: USD 77 EN 12472: USD 109	4 pieces of metal components
g. Fiber Content	On Quote	2 X A4 size
h. Colourfastness to Urine	USD 23 per part	A4 size
i. Flame Retardant for TRIS	USD 190	5g
j. PH	USD 25	10g

Remark:
Price information is for reference only and based on our Guangzhou laboratory pricing.
Please check with local laboratories to confirm exact pricing for your region.

Revision History

Issue No.	Revision date	Changes	Prepared by	Approved by
1.0	Sep 26, 2011	Initial Release	Dongmei Zhang	
2.0	Aug 24, 2012	Add the Canada test requirement	Renee Zhao Sherry Wang	Taylor (Emily) on 08 Jan 2013