



THE WOOLMARK COMPANY

# WOOLMARK SPECIFICATION

PILE BEDDING PRODUCTS

## SPECIFICATION IB-3

Effective 1 January 2016

# WOOLMARK SPECIFICATION

## **SPECIFICATION IB-3: 2016**

### **PILE BEDDING PRODUCTS**

#### **PRODUCTS**

**Woolmark** labelling may be applied to the products listed below made from woven, knitted or tufted pile fabrics:

- mattress overlays and under-blankets (ie underbody product) excluding products with a wool filling. For products with a wool filling (e.g. bed pads) see specification IB-2.
- bedspreads
- blankets, (single or double-sided) (ie over body product)
- sleeping bags
- cushion covers
- pillow cases
- woven towelkets (ie a blanket of terry towel loop construction commonly used in Japan).

Pile may be of cut and/or loop construction.

**Woolmark Blend Labelling.** On a case-by-case basis, **Woolmark Blend** labelling may be applied to pile bedding products with a wool/cotton or wool/silk pile. All products **must** be submitted to the Woolmark Management Group for consideration.

The **Woolmark Blend logo must not** be used on any other pile bedding products.

## MANDATORY REQUIREMENTS

All products irrespective of care claim, including 'Dry clean only' products.

Property	Test method	Pass level				
		Towelket	Blankets		Bedspreads, cushion covers, pillow case	Mattress overlays
		Double sided	Single sided	Double sided		
Wool content of pile (minimum)	155	<b>Woolmark</b> – Pure New Wool (see Specification F-1, F-2, F-3 or F-4 for details as appropriate)  <b>Woolmark Blend</b> – 50% Pure New Wool, 50% cotton, silk or other natural fibre (see Specification F-5)				
Product dimensions		Actual product dimensions must be measured and must be equal to (or greater than) the stated dimensions on the label.				
Surface pile weight (gm <sup>-2</sup> : minimum)	277	Total: 200 Each side: 100	200	Total: 300 One side: 200 One side: 100	250	500
Sliver knit products only (if products <500gm <sup>-2</sup> , ≥300gm <sup>-2</sup> , see pile density function)		250	Total: 500 Each side: 250	250	500	
Pile density function (minimum) (if products <500gm <sup>-2</sup> , ≥300gm <sup>-2</sup> )	285	–				80
Pile height (mm: minimum)	279	–	7	8	7	15
Pile thickness (mm: minimum)	280	–	–	–	–	3
Percentage pile (%: minimum)	289	100	70	70 (each side)	70	100
Colourfastness to rubbing: wet and dry (grade: minimum) Products darker than 1/12 standard depth only	165	3–4				
Extractable matter of pile (%: maximum)	136	1.0				
Colourfastness to light (grade: minimum) Blankets and bedspreads only	5	Darker than 1/12 standard depth: 4 Lighter than, or equal to, 1/12 standard depth: 3				–

- This table must be read in conjunction with the notes that follow.

### NOTES

#### 1. Blankets

Double-sided product: each side must be a minimum of 4mm.

#### 2. Mattress overlays:

The product may be of multi-layer construction with a filling of any fibre combination if the fibre is new (not previously included in an end-product) or it may be block foam.

**3. Woolmark TM155: Wool content**

Woolmark Blend labelling may be applied to pile bedding products with a wool/cotton or wool/silk pile. All products must be submitted to the Woolmark Management Group for consideration. Woolmark Blend labelling must not be used on any other pile bedding products.

**4. Woolmark TM277: Surface pile weight**

For mattress overlay products where the surface pile weight is less than  $500\text{gm}^{-2}$ , but greater than  $300\text{gm}^{-2}$ , an alternative acceptance criteria based on pile density function is permitted; pile density function  $\geq 80$ .

**5. Woolmark TM285: Pile density function**

Pile density function =  $(p^2/100h)$ , where  $p$  is the weight per unit area and  $h$  is the pile height.

**6. Woolmark TM279: Pile height of bedding**

Note new test method.

**7. Woolmark TM280: Pile thickness of bedding**

Note new test method.

**8. Woolmark TM289: Percentage pile area**

For fabrics with pile and no-pile areas, the pile must cover a minimum of 70% of the total fabric surface. In the case of mattress overlays, 100% pile coverage is required. The use of a no-pile area for a pillow is, however, permitted. Surface pile weight must be calculated on the pile area only. All samples must be submitted to the Woolmark Management Group for approval.

**9. Woolmark TM165: Colourfastness to rubbing**

Only applicable to products darker than 1/12 standard depth.

**10. Woolmark TM136: DCM extractable matter**

No further comment.

**11. Woolmark TM05: Colourfastness to light**

Only applicable to blankets and bedspreads.

## ADDITIONAL MANDATORY REQUIREMENT FOR DRYCLEAN ONLY PRODUCTS

Property	Test method	Pass level
Total dimensional change: maximum (% shrinkage) Number and type of cycles: 3 × ISO3175 Normal or CDT	–	Product must not shrink below stated product dimensions or Width –5 < DC Length –5 < DC (if product dimensions are measured rather than using the stated dimensions on the label)
Appearance after three dry clean cycles – pile Sliver knit products only	287	Acceptable (satisfactory after wash level of fibre clumping, felting and consolidation)
Appearance after three dry clean cycles – pile Non-sliver knit products		Acceptable (satisfactory after wash level of fibre clumping, felting and consolidation)

- This table must be read in conjunction with the notes that follow

### NOTES

#### 1. Product dimensions

Actual product dimensions must be measured and must be equal to (or greater than) the stated dimension on the label.

–5 < DC indicates that the product must not shrink more than 5%.

#### 2. Woolmark TM287: Appearance retention of sliver knits

Three dry clean cycles according to ISO 3175 *Normal* or equivalent for the commercial dry clean test (CDT).

Felting can occur during use (in addition to that during cleansing). It is essential that all products exhibit an acceptable degree of appearance retention during use, irrespective of care claim.

To achieve satisfactory appearance after use, especially in high pile height products, it may be necessary to use shrink-resist treated wools.

#### 3. Sample for testing

It is recommended the sample size for Woolmark TM31, CDT or CWT is a single adult size product (or its equivalent), but samples of 1.0 x 1.0m will be accepted.

#### 4. Appearance after dry cleaning

Dry cleaning must be carried out according to ISO 3175 *Normal* (or equivalent) using a solvent system charged with 2% water. In assessing the acceptability of a product, the surface appearance before and after the specified cleaning cycles will be considered.

“Acceptable” implies satisfactory after wash level of fibre clumping, felting and consolidation.

## ADDITIONAL MANDATORY REQUIREMENTS FOR HAND WASHABLE PRODUCTS

Property	Test method	Pass level
Relaxation dimensional change after 1 × 7A cycle	31	Product must not shrink below stated product dimensions or Width      -4 < DC Length      -4 < DC (If product dimensions are measured rather than using the stated dimensions on the label.)
Felting dimensional change after 1 × 7A cycle	31	Width      -5 < DC Length      -5 < DC
Appearance of pile after wash cycles (1x7A + 1x7A)	287	Acceptable
Colourfastness to hand washing Change of colour (minimum) Stain wool (minimum)	250	3-4 4
Colourfastness to wet alkaline contact Change of colour (minimum) Stain wool (minimum) Multicoloured products only	174	3-4 4

- All tables must also be read in conjunction with the notes that follow.

### NOTES

#### 1. Care Claim

Hand wash (flat dry or hand wash) line dry.

#### 2. Woolmark TM31: Dimensional stability

-4 < DC indicates that the product must not shrink more than 4%.

-5 < DC indicates that the product must not shrink more than 5%

#### 3. Woolmark TM287: Appearance retention of sliver knits

Acceptable implies satisfactory after wash level of fibre clumping, felting and consolidation.

In assessing the acceptability of a product the surface appearance before and after the washing cycle will be considered. In order to achieve satisfactory appearance after washing, machine washable products must be made from shrink-resist treated wools and it is recommended that a latex back coating be applied to sliver knit products to aid pile retention.

#### 4. Woolmark TM250: Colourfastness to hand washing

This test applies to coloured products only.

#### 5. Woolmark TM174: Colourfastness to wet alkaline contact

This test applies to multi-coloured products only.

## ADDITIONAL MANDATORY REQUIREMENTS FOR MACHINE WASHABLE PRODUCTS

Property	Test method	Pass level
Relaxation dimensional change (%) after 1 × 7A cycle	31	Product must not shrink below stated product dimensions (see note below) or Width: $-4 < DC$ Length: $-4 < DC$ (If product dimensions are measured rather than using the stated dimensions on the label.)
Felting dimensional change (%) Domestic products after 1 × 5A cycle Nursing products after 5 × 5A cycles	31	Width: $-5 < DC$ Length: $-5 < DC$
Appearance of pile after wash cycles 1 × 7A + DRY + 1 × 5A + DRY or 1 × 7A + DRY + 5 × 5A cycles + DRY	287	Acceptable
Colourfastness to machine washing Change of colour (grade: minimum) Stain wool (grade: minimum)	193	3–4 4
Colourfastness to wet alkaline contact Change of colour (grade: minimum) Stain wool (grade: minimum) Multi-coloured products only	174	3–4 4

- This table must be read in conjunction with the notes that follow.

### NOTES

- **Care claim:**  
Machine wash (flat dry or machine wash) line dry.  
**‘Tumble dry’ as part of the machine washable care claim.**  
Any product to be labelled ‘Tumble dry’ must be sent to the Woolmark Management Group, which will submit the product to the designated laboratory for testing and assessment of compliance to the appropriate specification. In assessing the acceptability of a product, the surface appearance before and after the washing and drying cycle will be considered.
- **Woolmark TM31: Dimensional stability**  
 $-5 < DC$  indicates that the product must not shrink more than 5%.
- **Woolmark TM287: Appearance retention of sliver knits**  
Acceptable implies satisfactory after wash level of fibre clumping, felting and consolidation. In assessing the acceptability of a product, the surface appearance before and after the washing cycle will be considered. To achieve satisfactory appearance after washing, machine washable products must be made from shrink-resist treated wools and it is recommended that a latex back coating be applied to sliver knit products to aid pile retention.
- **Woolmark TM193: Colourfastness to machine washing**  
This test applies to coloured products only.  
Testing carried out according to Part A using standard detergent without perborate. Additional labelling requirements must be observed to prevent problems that could arise when a detergent containing bleach is used during machine washing of the bedding product. In this case, all tickets and labels attached to products must carry an advisory statement: ‘Wash using a Woolmark approved detergent’ (or similar). Full details of these additional requirements are available from the Woolmark Management Group.
- **Woolmark TM174: Colourfastness to wet alkaline contact**  
This test applies to multicoloured products only.

**APPENDIX: Specifications for additional claims**

**ADDITIONAL CLAIM: Pure Merino wool**

**PRODUCTS**

**Pure Merino Wool** may be applied to all **Woolmark labelled** products meeting the criteria detailed in this specification.

**Pure Merino Wool** *must not* be used on **Woolmark Blend** or **Wool Blend** labelled products.

**Pure Merino wool additional criteria**

Property	Test method	Requirements
Wool content	155	Pure New Wool as indicated in specifications F-1, F-2, F-3, F-4
Mean wool fibre diameter (µm: Absolute maximum)	22 or 23 or 24	22.5µm

**NOTES**

- 1. The mean fibre diameter is determined from the yarn (or fibre if appropriate) removed from the fully finished product.

The fibre diameter requirement (which includes sampling and testing tolerances) is applicable at the end product stage. It is known that the mean fibre diameter can increase during textile processing as a result of preferential loss of finer fibres. It is not known how much change will occur for any particular set of circumstances but in order to meet the end product requirement it is advised that wools with diameters closer to 21.5–22.0µm be chosen at the raw material stage.

In cases of dispute, the result from Woolmark TM24 must be accepted.

## ADDITIONAL CLAIM: Australian Merino

### PRODUCTS

**Australian Merino** may be applied to all **Woolmark** labelled products meeting the criteria detailed in this specification.

All requests for products to be included in the Australian Merino program for furnishing products, bedding products, carpets and rugs must be submitted to the Woolmark Management Group for consideration.

### Australian Merino additional criteria

Property	Test method	Requirements
Wool content	155	Pure New Wool
Mean wool fibre diameter (µm: Absolute maximum)	22 or 23 or 24	22.5µm
Australian wool content(%: minimum)	Wool importer's or wool supplier's certificate to be submitted by licensee for confirmation	50%

### NOTES

1. The wool must be from pure Merino sheep and written confirmation must be supplied.

## ADDITIONAL CLAIM: Gold Label

### PRODUCTS

**Gold Label** may be applied to pile bedding products covered by this specification.

All requests for products to be included in the Gold Label program for blankets, bedspreads, travel rugs and throws must be submitted to the Woolmark Management Group for consideration.

### Gold Label additional criteria

Property	Test method	Requirements
Wool content	155	Products must meet all Woolmark requirements (see Woolmark specifications F-1 to F-4)
Mean wool fibre diameter ( $\mu\text{m}$ : Absolute maximum)	22 or 23 or 24	22.5 $\mu\text{m}$
Australian wool content(%: minimum)	Confirmation by wool importer's or wool supplier's certificate to be submitted by licensee	100%

### NOTES

1. The fibre diameter requirement (which includes sampling and testing tolerances) is applicable at the end product stage. It is known that the mean fibre diameter can increase during textile processing as a result of preferential loss of finer fibres. It is not known how much change will occur for any particular set of circumstances but in order to meet the end product requirement it is advised that wools with diameters closer to 21 $\mu\text{m}$  be chosen at the raw material stage.

### OPTIONAL CARE CLAIM: Machine wash and tumble dry

All products submitted for approval for the use of the **Woolmark** or **Woolmark Blend** label must be submitted to the Woolmark Management Group (WVG). All Information on constructional parameters for submitted products must be included with products for this care claim. Testing and approval/rejection of such products will be arranged by the WVG.

### SCREENING TEST

Property	Test method	Pass level
Relaxation dimensional change (% maximum) No. and type of wash and dry cycles	31/254	Width: 4 < DC Length: 4 < DC  1 x 7A plus 1 x tumble dry
Felting dimensional change No. and type of wash and dry cycles	31/254	1 x 5A plus 1 x Tumble Dry
Total dimensional change (% maximum)	31/254	Width: 5 < DC Length: 5 < DC
Appearance after three dry clean cycles – pile Sliver knit products only	287	Acceptable

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