



THE WOOLMARK COMPANY

WOOLMARK SPECIFICATION

FURNISHING FABRICS

SPECIFICATION IF-1

Effective 1 January 2016

WOOLMARK SPECIFICATION

SPECIFICATION IF-1: 2016

FURNISHING FABRICS

PRODUCTS

Woolmark, Woolmark Blend or Wool Blend labelling may be applied to flat woven, pile woven and pressed felt furnishing fabrics for:

- residential or domestic furniture, suitable for most styles of furniture for general residential or domestic use (e.g. lounge room furniture)
- contract furniture, suitable for most styles of furniture for general contract use (e.g. hotel bedrooms and offices)
- office screens
- wall coverings
- curtains
- decoration. Pressed and felted wool fabrics suitable for decorator items (e.g. lamp shades, craft items and surface protection)
- upholstery for public transport and automobile use. See also 'Product notes'
- upholstery for severe usage contract furniture (see also 'Advisory requirements').

PRODUCT NOTES

1. **TRANSPORT**

Many public transport undertakings and all automobile manufacturers have their own specifications for upholstery fabrics. The requirements detailed in the category 'Severe usage contract' should be considered as a minimum.

2. **SEVERE USAGE – CONTRACT**

Precise usage must be determined. See 'Advisory requirements' for guidance. Fabrics for use in severe usage contract areas, such as cinemas and theatres, public transport and automobiles, are often required to pass specifications set by the manufacturers of seats or vehicles or by specifiers and architects. The advisory requirements listed for severe usage contract are the suggested minimum levels that should be reached before samples are submitted for Woolmark, Woolmark Blend or Wool Blend approval.

3. **ABRASION RESISTANCE**

In many cases, other tests methods are specified by automobile manufacturers, particularly in the case of abrasion resistance. Abrasion testing does not consistently predict the wear life and/or extended appearance performance of a textile product, but results obtained on the Martindale tester have been shown to be useful indications of such performance.

7. **FLAMMABILITY**

Due to the multitude of flammability test methods and specifications that apply globally, a flammability requirement has not been included within this specification. Flammability specifications are applicable to a wide range of residential and contract products and advice regarding test methods, specifications and the performance of Woolmark and Woolmark Blend products is available from The Woolmark Company.

8. **CARE CLAIM INFORMATION**

Information regarding regular cleaning and spot and stain removal from Woolmark, Woolmark Blend and Wool Blend products is available from The Woolmark Company.

9. **HAND OR MACHINE WASHABLE PRODUCTS**

In general, the care claim will be 'Dry clean only' for this product category. However, any product on which a licensee wishes to use the care claims 'Hand washable' or 'Machine washable' must be forwarded to The Woolmark Company for consideration.

If a machine-washable product cannot be tumble dried, the label must carry the claim 'Do not tumble dry' (by means of words or symbols as appropriate).

MANDATORY REQUIREMENTS

Property	Test method	Pass level			
Fibre content of fabric or pile as appropriate (minimum)	155	Woolmark: Pure New Wool Woolmark Blend: 50% new wool Wool Blend: 30% new wool			
		Upholstery fabrics		Curtains	Wall coverings, office screen
		Flat	Pile		Pressed felts
Tensile strength (kg: minimum)	4	35	35	-	-
Total wool weight (gm ⁻² : minimum)	13	-	-	-	250
Fabric density (x10 ⁻³ gm ⁻³ : minimum)	13	-	-	-	80
Non recoverable extension (% maximum)	248	-	-	-	8
Abrasion resistance ('000 rubs) (minimum)	112	20	20	-	-
Surface pile weight (gm ⁻² : minimum) Pile fabrics if abrasion < 20,000 rubs	277	-	100	-	-
Surface pile density (x 10 ⁻³ gm ⁻³ minimum) Pile fabrics if abrasion < 2,0000 rubs	285	-	50	-	-
Percentage pile (%: minimum)	289	-	60	-	-
Colour fastness to shampooing (grade: minimum) Multi-coloured products only	233	3-4	-	-	3-4
Colourfastness to light (grade: minimum)	5	Darker than 1/12 standard depth:5 Lighter than, or equal to, 1/12 standard depth:4			
Colourfastness to water change of colour (grade: minimum) stain wool (grade: minimum) stain cotton (grade: minimum)	6	-		3-4 3 3	3-4 3 3
For blend products only stain other fibre (grade: minimum)		-		3	3
Colourfastness to rubbing: wet and dry (grade: minimum)	165	3-4			
Extractable matter (%: maximum)	136	1.0			
Insect resistance (Australia, New Zealand and South Africa only)	27 28	See Specification CP-4			

NOTES

1. Woolmark TM155: Wool content

Woolmark See specifications F-1, F-2, F-3, F-4 for details as appropriate.
Woolmark Blend See Specification F-5.
Wool Blend See Specification F-7.

2. Woolmark TM4: Tensile strength

Only applicable to upholstery fabrics. Must comply with the minimum in both warp and weft directions.

3. Woolmark TM13: Weight per unit area

Wool weight is calculated from the weight by unit area and the percentage wool on the product.

$$\text{Wool weight (g/m}^2\text{)} = \frac{\text{weight (g/m}^2\text{)} \times \text{wool content (\%)}}{100}$$

For pressed or pile fabrics, the density is calculated from the fabrics weight and the thickness.

$$\text{Density (g/m}^3 \times 10^3\text{)} = \frac{\text{weight (g/m}^2\text{)}}{\text{thickness (mm)}}$$

4. Woolmark TM248: Non-recoverable extension

This test is only applicable to pressed felt fabrics.

The performance of felted wool layers is closely related to the construction and the felting or finishing of the fabric. Problem fabrics may include one or more of the following elements: (a) insufficient consolidation; and (b) over-raised surface.

The general effect of these parameters is a reduction in product durability and high values of non-recoverable extension. If a test specimen fails before a load of 10kgf is reached, the specimen must be considered as a failure.

5. Woolmark TM112: Abrasion resistance

This test is only applicable to upholstery fabrics. If the abrasion resistance of a pile fabric is less than 20,000 rubs, the fabric must meet the requirements for TM277 and TM285.

6. Woolmark TM277: Surface pile weight

This criterion with that from TM285 may be used to approve pile fabrics if the abrasion resistance is less than 20,000 rubs. The surface pile weight and surface pile density must be calculated on the pile areas only. All samples must be submitted to The Woolmark Company for approval.

7. Woolmark TM285: Surface pile density

This criterion may be used to approve pile fabrics where the abrasion resistance is less than 20,000 rubs. The surface pile weight and surface pile density must be calculated on the pile areas only. All samples must be submitted to The Woolmark Company for approval.

8. Woolmark TM289: Percentage pile

For upholstery fabrics with pile and no pile areas, the pile must cover a minimum of 60% of the total fabric surface. All samples must be submitted to The Woolmark Company for approval.

9. Woolmark TM233: Colourfastness to shampooing

This test applies only to multi-coloured products.

10. Woolmark TM5: Colourfastness to light

No further comment.

11. Woolmark TM6: Colourfastness to Water

No further comment.

12. Woolmark TM165: Colourfastness to Rubbing

No further comment.

13. Woolmark TM136: Extractable material

If a fluorocarbon finish has been applied to a fabric some of the chemical may be removed by the DCM and a high extract may be measured. Woolmark TWC-TM258 should be carried out and minimum grades of 4 (oil) and 3 (water) should be achieved if a fluorocarbon has been applied.

14. Woolmark TM27: Insect Resistance

See specification CP-4 for advice regarding insect resist treatment.

ADVISORY REQUIREMENTS

All samples must be tested using the test methods in the following table, however there is no pass or fail criteria for the properties tested. . The licensee must test all samples to the appropriate method and report the result to the customer. The failure of the product to meet the guideline performance level must be highlighted in the report to the licensee. When requested, The Woolmark Company can provide advice or assistance to the licensee to improve the performance of the product under normal commercial arrangements for consultancies.

The decision to accept or reject a particular fabric should be subject to agreement between the fabric manufacturer and the customer. The Woolmark Company **shall not act** to arbitrate between the two parties on such issues.

Severe Usage

Fabrics for use in severe usage contract areas, such as cinemas or theatres, public transport and automobiles, are often required to pass specifications set by the manufacturers of seats or vehicles or by the interior designer (stylist), specifier or architect. The following advisory requirements are the suggested minimum levels that should be reached before samples are submitted for Woolmark, Woolmark Blend or Wool Blend approval. However, consideration must be given by the specifier or architect to the colour combinations, as not all shades and depths will be able to meet the advisory minimum for light fastness of grade 6.

Property	Test method	Guideline performance level				
		Upholstery fabrics flat woven and pile woven			Curtains	Wall coverings, office screen fabrics
		Residential	Contract	Severe usage contract		
Tensile strength (N: minimum) Fabrics > 135 gm ² Fabrics < 135 gm ²	4	–	–	–	98 49	98 –
Abrasion resistance ('000 rubs: minimum)	112	–	30	40	–	–
Surface pile weight (gm ² : minimum) Pile fabrics only	277	–	–	150	–	–
Surface pile density (× 10 ³ gm ⁻³ : minimum) Pile fabrics only	285	–	–	75	–	–
Seam slippage (mm opening: maximum)	117	6			–	–
Colourfastness to light (grade: minimum)	5	–	–	6	6	–
Pilling (grade: minimum) Flat woven fabrics only	196	3–4			–	–

NOTES

1. Woolmark TM277 and TM285: Surface pile weight and density

For fabrics with pile and no pile areas, the pile must cover a minimum of 60% of the total fabric surface. The surface pile weight and surface pile density must be calculated on the pile areas only. All samples must be submitted to The Woolmark Company for approval.

2. Woolmark TM117: Seam slippage

Although seam slippage requirements are present in many national standards, data collected by The Woolmark Company over many years shows that fabrics with test results greater than 6mm can perform satisfactorily in use (e.g. where the design of the furniture imparts little strain on the seam, either during upholstering or in use). However, to avoid problems with certain types of furniture construction that can place extra strain on the fabric, a 6mm maximum seam opening is advised.

3. Woolmark TWC-TM196: Pilling

This advisory level applies to flat woven fabric only.

Pilling is generally not a problem with the majority of 100% wool fabrics. However, the use of a small percentage of synthetic fibre may cause a problem. Semi-worsted spun wool yarns have also shown a propensity to pill during use. It is advised that fabric structures which include blends and/or semi-worsted yarns are evaluated.

Additional claim: Australian Merino

PRODUCTS

Australian Merino may be applied to all **Woolmark labelled** products that meet the criteria 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 Company 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	22.5
Percentage of Australian wool	Confirmation: wool importer's or wool supplier's certificate to be submitted by licensee	50%: minimum

NOTES

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

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