

**TEST  
MATERIALS**

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## Extraordinary Testing Solutions

### Global Leaders in our Field

At James Heal, we combine expertise, design and innovation to create "extraordinary testing solutions". Leaders in our field, we manufacture testing instruments and test materials and offer UKAS accredited service and calibration throughout the world.

### Setting the Standard

Genuine innovators, we utilise the expertise and knowledge of a talented team of industrial, mechanical and electronic designers, software writers, production engineers and testing experts to create our products and services. Our aim is to bring our customers unparalleled insight into materials performance, through the excellence of our instruments, and the service and support we provide.



### Innovation in our DNA

Our passion for testing is sparked by imagination and fuelled by expertise. Indeed this passion for new ideas characterises the way we work with each other, with our customers and with our partners.

In order to provide the most innovative solutions that solve even the most complex and challenging materials testing problems, we put the user at the forefront of our design process. This results in intelligent and intuitive user interfaces, combined with the best in instrument functionality, reliability, safety and aesthetics.



# TEST MATERIALS

Reliable, repeatable testing requires high quality test materials. With an enviable track record in quality and provenance, James Heal's test materials lead the market. This ensures our customers are getting the right result, time after time.

James Heal test materials are used the world over, and are subject to rigorous checks in our purpose built Test Materials Centre. With facilities for warping, weaving, inspection, cutting, stamping and sewing, as well as comprehensive testing, our production is controlled, allowing James Heal to maintain the peerless quality of its test materials.

- World-class quality, locally available
- Fast lead-times through our global network of distributors
- Stock often held locally for ultimate flexibility



## Pedigree

James Heal have been supporting industry for over 140 years and we use our accumulated knowledge and experience to develop customer centred products.

All of our test instruments and test materials comply with relevant standards and specifications and we work directly with industry leaders to ensure we design products with you in mind.

## Bespoke Products

Having a modern, well-equipped and flexible manufacturing facility, allows us to produce variants on standard products or develop totally new product lines. Please talk to us about any special needs that you may have.

## Quality Assurance

Two well equipped ISO 17025 compliant in house laboratories are utilised to check every batch of product. We have a 'zero tolerance' to non conformance and product is not released until it meets specification. Quality and consistency are further assured by the use of external UKAS accredited test houses, and by carrying out a comprehensive range of performance tests. These are documented and test results provided with each batch, ensuring total customer transparency.

## Global Network

We have agents and distributors in over 60 countries so you can order products locally and pay in your local currency. You can find your nearest distributor in the Contact section of our website.

# Certificate of Conformity

Each batch of test materials is documented and is associated with a batch reference number. We offer customers a certificate of conformity for each test material, easily downloadable from our website.

This states that the test material is compliant with the relevant standards. In many cases this certificate now includes data from the testing performed on each batch of that material, for complete surety and transparent best practice.

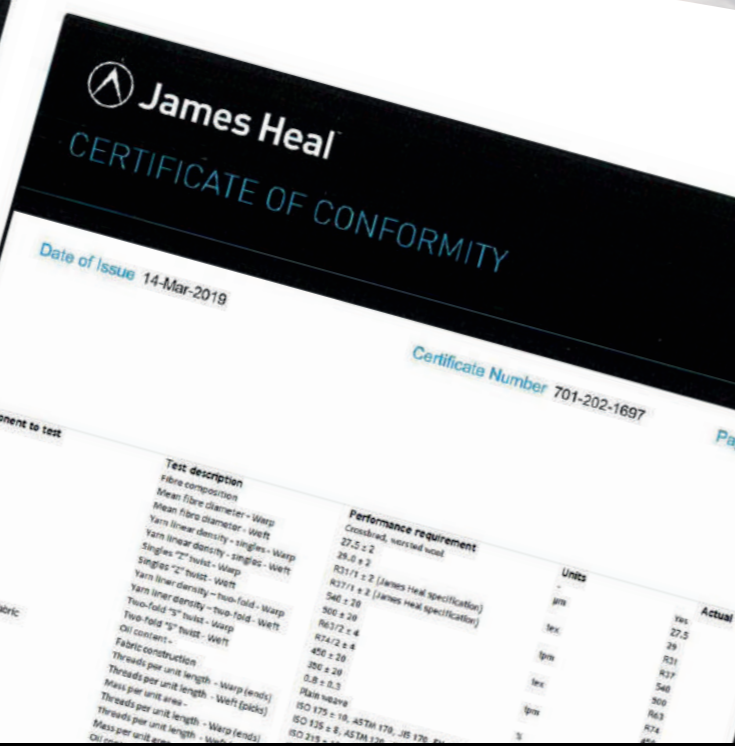
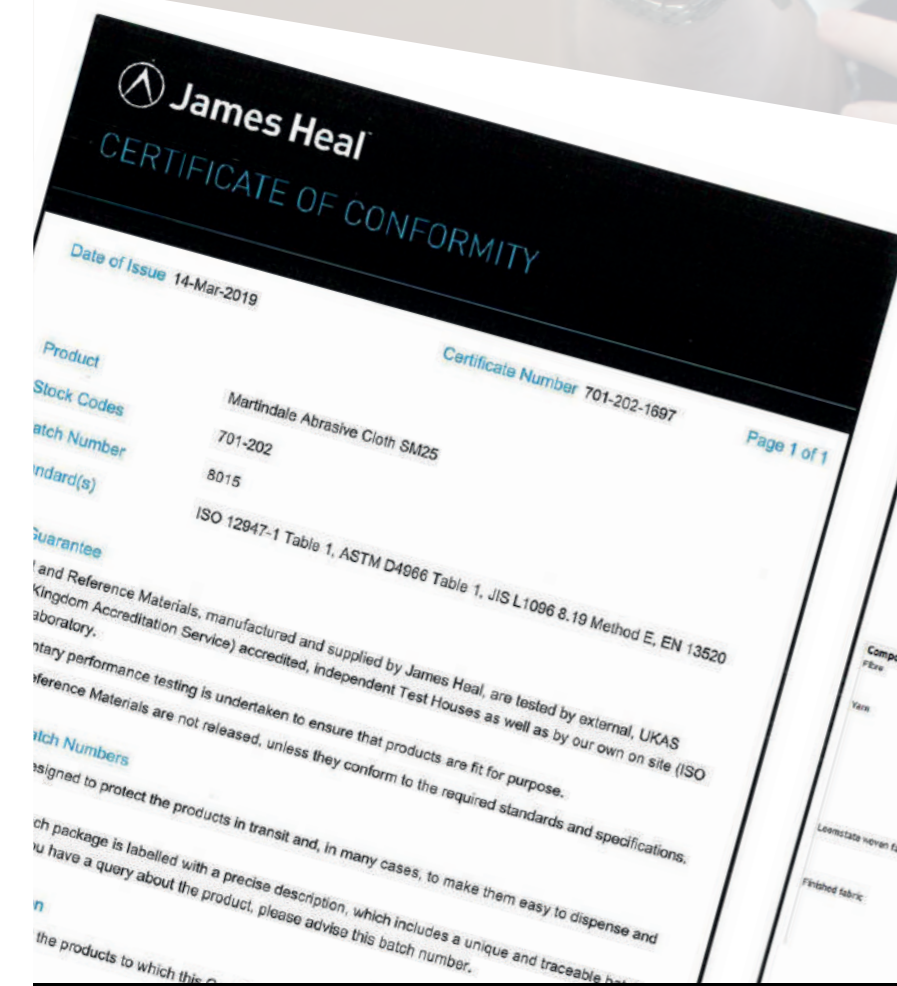
## AATCC Test Materials

We stock a comprehensive range of genuine AATCC test materials including gray scales, crocking cloths, ballasts, multifibers, light fastness testing standards and detergents.



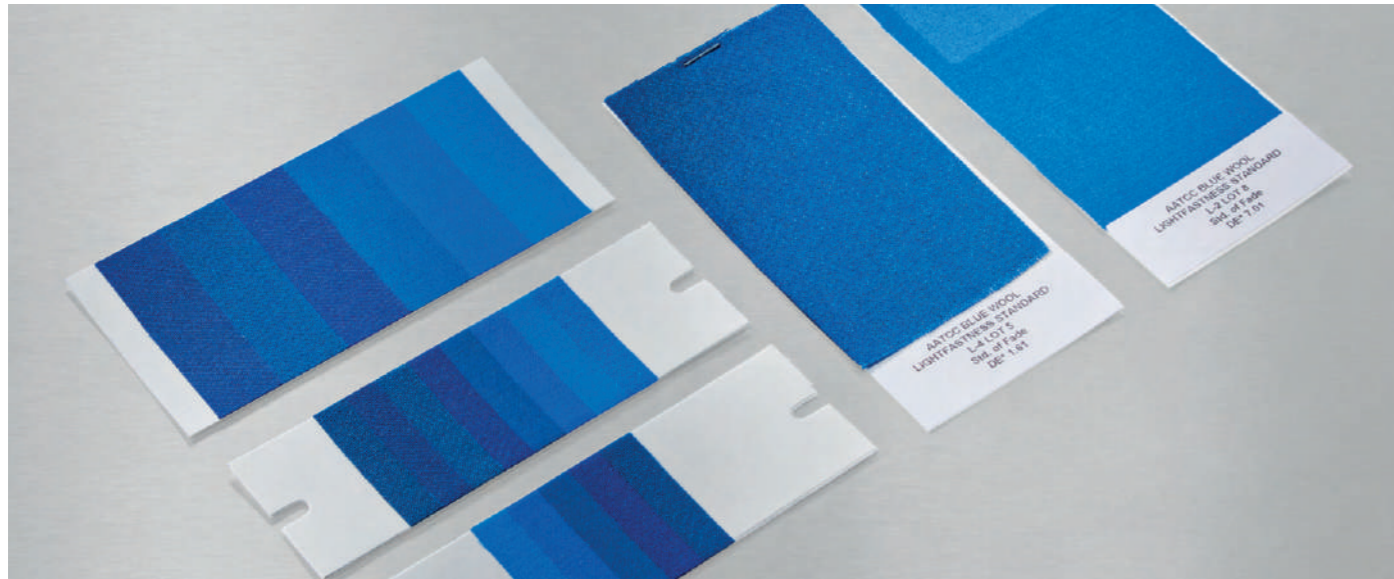
Code	Ballast
702-430	AATCC Ballast Type 1 - per pack (16)
702-432	AATCC Ballast Type 3 - per pack (16)
Code	Blue Wools and Fading Standards
766-516	AATCC Lightfastness Standard L-2 - per pack (50 x 75cm)
766-521	AATCC Standard of Fading for L-2 - each
Code	Crocking Cloth/Cotton Lawn
702-456	AATCC Crocking Cloth - per pack (1m) approx. 140cm wide
702-424	AATCC Crocking Cloths - per pack (1000 pieces) 5 x 5cm (straight edges)
702-426	AATCC Crocking Cloths - per pack (1000 pieces) 5 x 5cm (gimped/zig zag edges)
Code	Detergents
706-500	AATCC 1993 Non-Phosphate Reference Detergent With Optical Brightener - per tub (2kg)
706-502	AATCC 1993 Non-Phosphate Reference Detergent Without Optical Brightener - per tub (2kg)
Code	Gray Scales
766-512	Gray Scale for Color Change AATCC
766-513	Gray Scale for Staining AATCC
766-510	Chromatic Transference Scale (9 step) AATCC
Code	Multifiber
702-417	Multifiber Adjacent Fabric Style 1 - per pack (1m)
702-420	Multifiber Adjacent Fabric Style 10 - per pack (1m)
702-403	Multifiber Adjacent Fabric Style 10a - per pack (1m)

Please visit [www.james-heal.co.uk/testmaterials](http://www.james-heal.co.uk/testmaterials) to see our full range of products



## Blue Wools

Blue wools are used for light and weathering fastness testing. They are individually dyed wool pieces, each with a different degree of fastness to light.



We supply Blue Wools in pieces or in strips bonded to card to accommodate your preferences. We can develop bespoke cards to meet your exact needs.

### European

Our 'European' Blue Wools Standards (ISO 105-B08) originate from DEK.

This German organisation holds the global master standard for Blue Wools and every batch produced is checked for compliance before it is released.

### American

The corresponding American Blue Wools originate from AATCC.

Code	Blue Wools – European
766-310	ISO Blue Wool Standards Nos. 1 - 8 - per set (8)
766-820	ISO Blue Wool Standards Nos. 1-8 [pre-mounted 10mm wide strips on card] - per pack (10 cards)
Code	Blue Wools and Fading Standards – American
766-516	AATCC Lightfastness Standard L-2 - per pack (50 x 75cm)
766-521	AATCC Standard of Fading for L-2 - each

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## TruFade

### Xenon arc light fastness tester with Weathering

TruFade is used to test the colour fastness to light of textiles, leather and other materials, simplifying a difficult area of light fastness testing to deliver consistent and accurate results.



## Bursting Strength Test Materials

TruBurst, with the TestWise Pro software, offers unprecedented functionality to enable an extensive variety of bursting strength and fatigue tests to be performed on textiles and a wide range of other materials.



We stock a wide range of plain, reinforced and low-pressure diaphragms and verification foils which have been developed in line with major retailer standards, including M&S, P27 and Adidas.

These are designed for use alongside TruBurst to accurately measure the bursting strength required for a broad range of different materials. This includes knitted products, car seats, food packaging and medical supplies.

Code	TruBurst Diaphragms
777-133	Reinforced Diaphragms (1mm thick) - per pack (10)
777-134	Plain Diaphragms [M&S P27 and Adidas 4.09] (1mm thick) - per pack (10)
777-135	Reinforced Diaphragms (1.5mm thick) - per pack (10)
777-150	Low Pressure Diaphragms (0.2mm thick) - per pack (10)
Code	Other Diaphragms
758-561	Plain Diaphragms (200 x 200mm x 1mm thick) - per pack (10)
758-563	Plain Diaphragms (80mm diameter) - per pack (20)
777-140	Reinforced Diaphragms - equivalent of Product Code 520 (approx. 48 mm diameter) - per pack (12)

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## TruBurst

### Intelligent bursting strength tester

Unprecedented functionality enables an extensive variety of bursting tests to be performed on a wide range of materials: textiles, medical supplies, paper, tin foil and plastic items - it is even used to test mosquito nets.



## Cotton Lawn/Crocking Cloth

Crocking cloth, also known as cotton lawn or cotton rubbing cloth, is used in a CrockMaster (Crockmeter) to check the amount of dye transfer, following a dry or wet rub fastness test.



Colour fastness to rubbing is the most basic of colour fastness tests. The dyed sample is rubbed, under controlled conditions, against the white crocking cloth. Subsequently, the degree of colour transfer is evaluated using a Grey Scale for assessing staining.

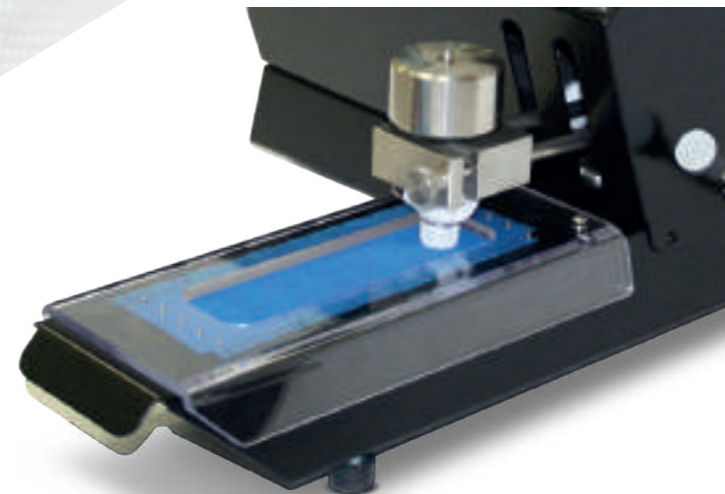
We offer both ISO and AATCC cloths in accordance with their different specifications. We supply either cut pieces or in roll form. Cut pieces can be ordered with either straight or gimped edges.

Code	Cotton Lawn/Crocking Cloth – European
702-540	Crocking Cloths - per pack (500 pieces) 5 x 5cm (straight edges)
702-541	Cotton Lawn - per pack (1m) approx. 140cm wide
702-545	Crocking Cloths - per pack (500 pieces) 5 x 5cm (gimped/zig-zag edges)
Code	Cotton Lawn/Crocking Cloth – American
702-424	AATCC Crocking Cloths - per pack (1000 pieces) 5 x 5cm (straight edges)
702-426	AATCC Crocking Cloths - per pack (1000 pieces) 5 x 5cm (gimped/zig zag edges)
702-456	AATCC Crocking Cloth - per pack (1m) approx. 140cm wide

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## CrockMaster Colour fastness to rubbing tester

CrockMaster is available as either a manual or motorised device. The rubbing finger is easy to load with crocking cloth and the specimen clamp is suitable for a variety of materials.



## Detergents

We maintain a comprehensive range of standardised soap and detergents, used for colour fastness and shrinkage testing. They are specified in many European, American and International standards.



### Production

We have sophisticated production facilities, overseen by textile technologists, who ensure that the composition and performance of products are fully compliant with the specifications.

### Packaging

Our soaps and detergents are delivered in convenient and sturdy plastic tubs (2kg) or fibre drums (15 or 90kg), each labelled with a precise description and the relevant standards.

Code	Detergents – European
706-652	ECE Formulation Non-Phosphate Reference Detergent (A) Without Optical Brightener - per tub (2kg)
706-666	IEC Formulation Non-Phosphate Reference Detergent (A) With Optical Brightener - per tub (2kg)
706-650	ECE Formulation Phosphate Reference Detergent (B) Without Optical Brightener - per tub (2kg)
706-654	IEC Formulation Phosphate Reference Detergent (B) With Optical Brightener - per tub (2kg)
Code	Detergents – American
706-500	AATCC 1993 Non-Phosphate Reference Detergent With Optical Brightener - per tub (2kg)
706-502	AATCC 1993 Non-Phosphate Reference Detergent Without Optical Brightener - per tub (2kg)

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## Wascator Standardised European washing machine

Wascator is the standard reference washing machine for textile laboratories. It is used to determine fabric or garment shrinkage and appearance, after washing with standardised detergents.



## Grey Scales

Grey scales are used for assessing colour change and staining during colour fastness testing. Both scales are used for visual assessment to enable you to specify a rating from 1 to 5.



### Colour Change

The colour change scale consists of nine pairs of grey coloured chips, from grades 1 to 5 (with four half steps). Grade 5 represents no change and Grade 1 depicts severe change in some standards.

### Staining

The staining scale consists of nine pairs of grey and white coloured chips from grades 1 to 5 (with four half steps).

Code	Grey Scales
766-200	Grey Scale for assessing Change in Colour ISO 105 A02
766-201	Grey Scale for assessing Staining ISO 105 A03
766-205	Grey Scale for assessing Change in Colour JIS (Japanese)
766-204	Grey Scale for assessing Staining JIS (Japanese)
766-512	Gray Scale for Color Change AATCC
766-513	Gray Scale for Staining AATCC
766-510	Chromatic Transference Scale (9 step) AATCC

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## ThermaPlate

### Colour fastness and stability tester

ThermaPlate is used in the laboratory to evaluate colour fastness to dry heat, hot pressing and sublimation. ThermaPlate complements our suite of colour fastness testing instruments.



## Makeweights

Makeweights, also known as 'Ballast' or 'Loading Fabrics' are used to make up the load in washing, dry cleaning, drying or durability tests.



### Compliance with Standards

We offer Makeweights to the precise specifications demanded by various ISO standards. We also supply American Makeweights as specified in AATCC Test Methods.

### Bespoke Products

In addition to standard Makeweights, we are flexible and willing to produce non standard components. Please contact us if you have special requirements.

Code	Makeweights/Loading Fabrics/Ballast – European
702-530	Polyester Makeweights - per pack (1kg) - 300 x 300mm, 40g approx
702-532	100% Polyester Ballast (Type 3) - per pack (1 kg) - 210 x 210mm, piece mass 50g
702-536	100% Cotton Ballast (Type 1) - per pack (1 kg) - 92 x 92cm, piece mass 320g
702-533	Polyester Makeweights - per pack (1kg) - 300 x 300mm, 35g (+/- 3g)
Code	Ballast – American
702-430	AATCC Ballast Type 1 - per pack (16)
702-432	AATCC Ballast Type 3 - per pack (16)

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## AccuDry

### Standardised European tumble dryer

AccuDry is the perfect partner for Wascator, providing you with repeatable and standard conditions for both washing and drying. This air-vented tumble dryer is designed to reduce machine and operator variables to a minimum.





## Martindale Test Materials

James Heal manufacture original Martindale test materials and consumables, and are the preeminent supplier of these products.



### Conformance

Whether it's Abrasive Cloth, Woven or Nonwoven Felt or Polyurethane Foam, we guarantee total compliance with the relevant standards.

### Alternate Abradants

Martindale is specified in many standards and with a variety of alternate abradants, dependent on the material under test. We stock most of them. Please ask for details.

Code	Martindale Abrasion and Pilling Tester
701-202	Martindale Abrasive Cloth SM25 - per pack (5 metres)
701-207	Pre-cut Discs of Martindale Abrasive Cloth SM25 (140mm diameter) - per pack (100)
714-602	Nonwoven Felt Pads (140mm diameter) - per pack (20)
714-612	Woven Felt Pads (140mm diameter) - per pack (20)
786-255	Foam - per pack (50 sheets - each sheet approx. 375 x 250mm)
786-256	Pre-cut Discs of Foam (38mm diameter) - per pack (approx. 2000)
701-240	Klingspor PL31B Grit 180 - per pack (50 sheets) - each sheet 230mm x 280mm

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## Martindale Abrasion and pilling tester

This masterpiece of precision engineering embodies our unique approach to product development. Every detail and every touch point has been created with the customer in mind.



## Multifibre DW

We weave our own Multifibre DW, inspecting every metre in order to ensure that you receive a high quality test fabric every time.



We weave our Multifibre DW internally, carrying out a consistent testing process to ensure you receive a consistently high-quality test fabric. The materials composition is compliant with the requirements specified in ISO 105 F10 and is approved by many leading UK and European specifiers.

Customers have the option to order Multifibre DW as either rolls or in cut pieces, depending on the type of testing they plan to conduct. We also stock a range of the most popular American Multifibers, which are suitable for AATCC test methods. These are different in both the composition and construction compared to the Multifibre DW.

Code	Multifibre DW – European (ISO 105 F10)
702-500	Multifibre Adjacent Fabric DW - per roll (10m)
702-502	Multifibre Adjacent Fabric DW - per roll (50m)
702-520	Multifibre Adjacent Fabric DW - per box (250 pieces) 10 x 4cm (gimped edges)
702-521	Multifibre Adjacent Fabric DW - per box (200 pieces) 10 x 5 cm (gimped edges)
Code	Multifiber – American
702-404	Multifiber Adjacent Fabric Style 1 - per pack (1m)
702-420	Multifiber Adjacent Fabric Style 10 - per pack (1m)
702-403	Multifiber Adjacent Fabric Style 10a - per pack (1m)

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## GyroWash Colour fastness to laundering tester

Our GyroWash range comprises two machines: one with 8 and one with 20 positions. You can place either a small or large vessel in each position, so there is complete flexibility, should you wish to test to both ISO (small vessel) and AATCC (large vessel) standards.



## Multifibre LW

The Multifibre is made up of different fibre strips of material, which are often used as the adjacent fabric in different colour fastness tests. Including the likes of colour fastness to washing, dry cleaning, water perspiration plus many others.



Our internally woven Multifibre LW is approved by a number of UK retailers including Marks & Spencer. It has a similar composition to the Multifibre DW variation but with the acetate strip replaced by the regenerated cellulose strip.

This helps make the product more reflective of the fabrics found in current apparel.

We have included a comprehensively tested colourfast identification strip into the selvedge of our Multifibre LW helping to aid stock identification.

Code	Multifibre LW
702-515	Multifibre Adjacent Fabric LW - per roll (10m)
702-516	Multifibre Adjacent Fabric LW - per roll (50m)

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## GyroWash

### Colour fastness to laundering tester

Our GyroWash range comprises two machines: one with 8 and one with 20 positions. You can place either a small or large vessel in each position, so there is complete flexibility, should you wish to test to both ISO (small vessel) and AATCC (large vessel) standards.



## Phenolic Yellowing Test Kit

This is a predictive test to assess the potential of white or pastel-coloured yarns, fabrics or garments to yellow during transit or storage.



### Original kits

Our Test Kit is the original, developed by Courtaulds Research, for investigating complaints arising from transit or storage yellowing.

### Counterfeit Products

Beware of copies and counterfeit products, which do not produce accurate or consistent results or might cause health and safety issues.

Code	Yellowing (Phenolic)
706-720	Impregnated Test Papers 100 x 75mm - per pack (50)
706-820	Impregnated Test Papers 100 x 75mm - per pack (150)
706-822	Impregnated Test Papers 100 x 75mm - per pack (200)
706-709	Control Fabrics 100 x 30mm - per pack (25)
706-792	BHT-free Polythene Film - 63 microns thick - per box (100 pieces : 400 x 200mm)
706-201	Grey Scale for assessing Staining ISO 105 A03
706-799	1 x Test Kit - ISO 105 E04
706-801	1 x Test Kit - AATCC Test Method 15

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## Perspirometer and Incubator

### Colour fastness and phenolic yellowing tester

The Perspirometer and Incubator are both used for testing colour fastness and the phenolic yellowing tests.



## Photographic Standards

In spite of the increasing sophistication of our instrumentation, standard graded photographs are still widely used for evaluating surface changes after testing.



To ensure absolute consistency from batch to batch and to make the photographs as easy as possible to use, they are produced in-house and under strictly controlled conditions.

Furthermore, we are able to produce photographs to meet any special requirement you may have. We also stock a complementary range of AATCC and ASTM standard photographs and replicas.

Code	Grey Scales
766-493	AATCC Photographs for Single and Double Needle Seams - per set (2)
766-450	ASTM D 3512 Photographic Standards - per set (5)
766-455	SnagPod Reference Photographs - per set (9)
766-460	IWS Pilling Photographs SM 54 for knitted fabrics - per set
766-451	EMPA Photographic Standards - per full set (3 x 4 Woven & 3 x 4 Knitted)
766-459	IWS Pilling Photographs SM 50 for woven fabrics - per set
766-465	Mace Snag Photographs (suitable for use with ASTM D3939) - per set (9)

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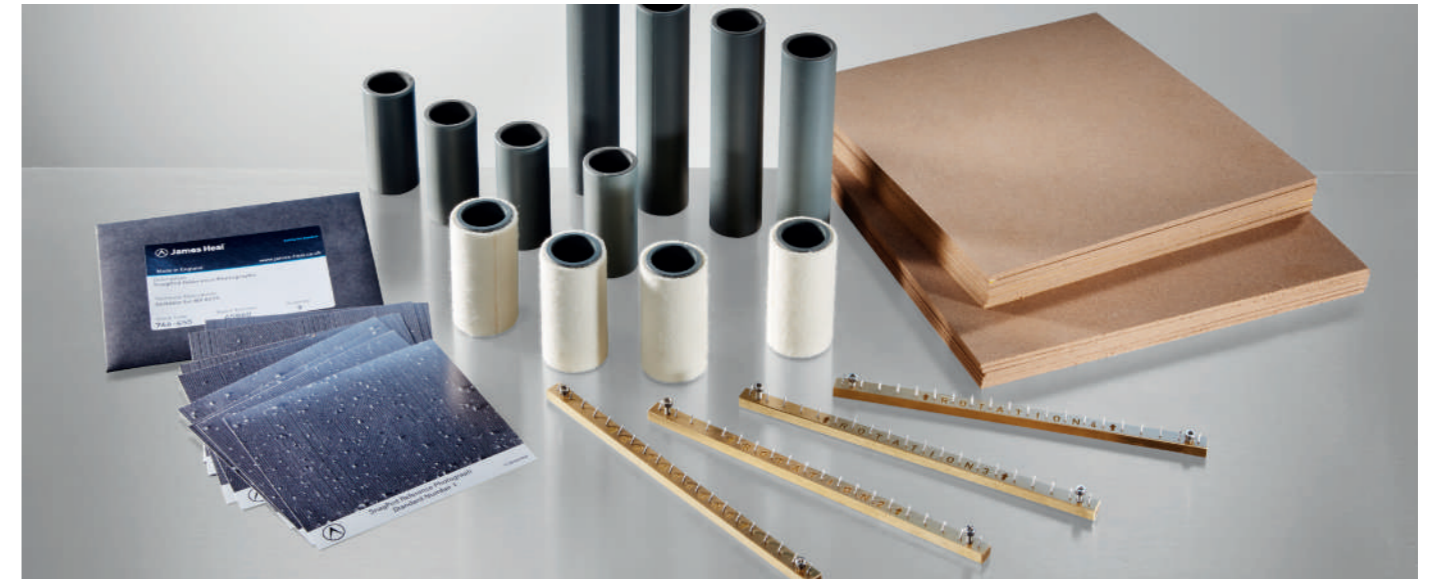
## Impulse Random tumble pilling tester

Impulse is an effective way of testing pilling performance, and is available in either a 2 or 4 station version. Specimens are agitated in cork-lined cylinders by a stainless steel impeller, for subsequent evaluation against test standards.



## Pilling/Snagging Materials

We aim to help you produce accurate and consistent test results by supplying totally compliant test materials, which perfectly complement our instrumentation.



We offer you an extensive range of test materials to complement our portfolio of pilling and snagging instruments. The products include cork liners, pilling tubes, and snagging points for Orbitor; liners, ramps, half-size pilling tubes, locking rings and snagging

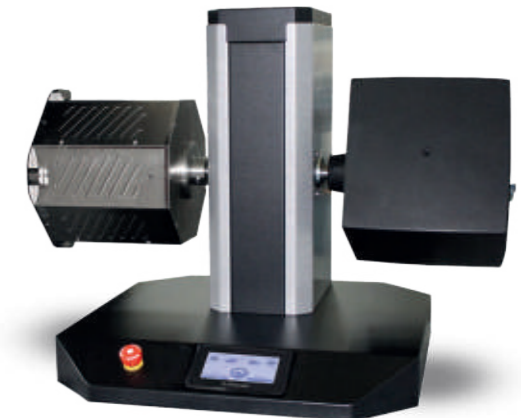
bars for the M&S Pilling/Snagging Drum; cork liners, cotton sliver and specimen edge glue for Impulse; and felt-covered pilling tubes, locking rings and snagging bars for SnagPod.

Code	Random Tumble Pilling Tester/Impulse
393-527	Cork Liner - per pack (50) 457± 2mm length
785-509	Grey Cotton Sliver - per pack (approx. 1 m)
Code	Orbitor Pilling & Snagging Tester and SnagPod
758-554	SnagPod Felt-Covered Polyurethane Tubes - per pack (4)
794-752	Cork Liners for Orbitor Pilling Boxes (mounted on steel plates) - per set (6)
758-555	Moulded Polyurethane Pilling Tubes (140.25mm long) - per pack (4)

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## Orbitor Pilling and snagging tester

Available in 2 or 4 station models, Orbitor is a reliable, consistent way of testing the pilling and snagging properties of woven and knitted fabrics.





# Next Generation Testing

The finest test materials for the finest test instruments. Browse our full range of innovative, class leading instruments at [www.james-heal.co.uk](http://www.james-heal.co.uk)



### WORLDWIDE PRESENCE

We have agents and distributors in over 60 countries. Please visit our website: [www.james-heal.co.uk](http://www.james-heal.co.uk) for more details

### TESTING INSTRUMENTS

Precision instruments for textiles, leather and other industries

### TEST MATERIALS

Test and reference materials for physical and colour fastness tests

### SERVICE AND CALIBRATION

Global installation, training, maintenance and calibration services

### TECHNICAL ASSISTANCE

Expert, friendly and helpful engineering and applications support



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