1.1 The physical evaluation of all R.M.Williams products and components (Raw Materials) must be carried out according to R.M.Williams specified test methods and meet R.M.Williams specifications.

1.2 List of Important Reference Materials/Specifications:

Fabric specifications
Garment Specifications
Boot Specifications
Leather Specifications
Sole Specifications
Heel Specifications

1.3 Definitions

At the present time R.M.Williams uses 3 different product code styles.

- Clothing (new)
- Footwear (new code under development)
- Craft and accessories (new code under development)

The new clothing product style code consists of 11 digits (letters and numbers combined) as provided below. The first two letters represent the style code. The next three numbers represent fit code, sleeve code and the pocket code respectively. Letters six and seven represent the fabric code. Numbers eight and nine represent the colour code and the final two digits represent the version code.

Clothing Product Code

| Example | STYLE CODE | FIT CODE | SLEEVE CODE | POCKET CODE | FABRIC CODE | COLOUR CODE | VERSION CODE |
|---|---|---|---|---|---|---|---|
| SH201OF3701 | SH | 2 | 0 | 1 | OF | 37 | 01 |
| COLLINS SHIRT | SHIRT | REGULAR | LONG SLEEVE | 1 POCKET | OXFORD | WHITE | VERSION 1 |

Footwear
Boot product code consists of 14 digits (e.g. B543Y.02FGCP09).
B – Boot
543 – Boot style
Y – Leather type (Y is for Yearling, K for Kangaroo etc.)
. (Dot) – Serves as separation in the code
02 – Leather colour (02 is for black, 41 is for chestnut etc.)
F – Heel type
G – Boot Fit
C – Toe shape
P – Sole type (P is for rubber sole, W for leather sole)
09 – Boot size

1.4 Development

The evaluation of the physicals for R.M.Williams products is defined by the method of development used.

**Overview Development Testing:**

| | **Internally Manufactured** | **Fully Purchased** |
|---|---|---|
| **Fabric** | Responsibility of R.M.Williams | Responsibility of contractor |
| **Garment** | Responsibility of R.M.Williams | Responsibility of contractor |
| **Trims** | Responsibility of R.M.Williams | Responsibility of contractor |
| **Footwear** | Responsibility of R.M.Williams | Responsibility of contractor |
| **Leather goods** | Responsibility of R.M.Williams | Responsibility of contractor |

1.4.1 A minimum of 5m of fabric for each fabric/colour are to be supplied for development testing.

1.4.2 A minimum of 1.5m skin for each colour/leather are to be supplied for development testing.

1.5 Bulk Production

All products developed by R.M.Williams for the R.M.Williams and the Stockyard brands should have physical testing performed to ensure that the agreements made during development are matching bulk production.

**Overview Bulk Production Testing:**

| | **Internally Manufactured** | **Fully Purchased** |
|---|---|---|
| **Fabric** | Responsibility of Fabric Mill | Responsibility of Contractor |
| **Garment** | Responsibility of R.M.Williams | Responsibility of Contractor # |
| **Trims** | Responsibility of Supplier | Responsibility of Contractor |
| **Footwear** | Responsibility of R.M.Williams | Responsibility of Contractor |
| **Leather goods** | Responsibility of R.M.Williams | Responsibility of Contractor |

# including all elements of the garment e.g. linings etc.

1.6 The suppliers that conduct in-house testing must demonstrate good ability to perform testing in an accurate manner. R.M.Williams can request to verify suppliers testing procedures by requesting samples to be submitted for testing by an independent accredited laboratory. The details of R.M.Williams approved independent accredited laboratories can be found in Subsection 7.

1.7 In case of change in the production process or cross-source in another facility the supplier must prove to Product Development/Quality Control that the product still meets the physical standards.

1.8 A minimum of 1 fabric swatch per production lot per fabric/colour for volumes less than 500m (e.g. spot buy) are to be tested. Agreements between the fabric mill and Product Development/Quality Control can be made when more testing is required, for specific reasons. For shipments > 3000m, 1 fabric swatch for each 1500m of part thereof.

1.9 For every drum load for each leather/colour 3 randomly selected skins are tested. Agreements between the tannery and Product Development/Quality Control can be made when more testing is required, for specific reasons.

2.1 All fabrics and leathers developed and used to manufacture R.M.Williams® and Stockyard® products must be laboratory tested and approved against R.M.Williams quality standards both at supplier and at R.M.Williams level.

2.2 Each fabric and leather is evaluated for physical and colour fastness performance against the requirements for fabric/leather type and the end use. Leathers are also subject to production performance testing. These tests are part of the materials testing procedure conducted by R.M.Williams Quality Department –See *Annex 8.2a: Fabric, Leather and Trims Testing*. The final physicals and the colour fastness testing will be done by an approved independent lab.

2.3 Fabrics/Leathers that are selected from the physical testing stage are then ordered for development testing of which 5m sample for fabric(s) and 1.5m sample for leather(s) are sent to R.M.Williams Quality Department/Product Development for further testing.

2.3.2 The ordering of fabrics/leathers for development testing will be based on a discussion between Sourcing, Product Development and Quality Control. Fabrics and leathers selected for development testing will have full physicals, colourfastness and chemical testing performed.

2.4 Any temporary exception to the existing fabric/leather physical performance standards must be processed as per procedure (ref. Section 4, Subsection 7).

2.5 Development is completed by the signing of the RMM document by the supplier and sign off of the Individual Fabric/Leather Development Spec Sheet to be provided by the supplier.

2.6 The supplier needs to inform Product Development/Quality Control about any change in process and needs to demonstrate that the change does not prevent the fabric/leather passing quality standards & guidelines.

2.7 For **new Fully Purchased garments**: [General lab. testing]; minimum 2 garments, any colour, correct fabric for knits and minimum 2 meters, any colour, correct fabric for wovens needs to be added as it needs to be determined if the new fabrics are up to R.M.Williams standard and/or specific improvements that need to take place before Agent Samples are developed.

2.8 For new **Fully Purchased footwear and leather goods** the suppler will need to demonstrate that the new leathers are up to R.M.Williams standard and/or specific improvements that need to take place before Agent Samples are developed.

**Made Internally**

3.1 All garments developed for R.M.Williams® must be laboratory tested and approved against R.M.Williams quality standards both at supplier and at R.M.Williams level.

3.2 All new finishes (existing finishes on new fabrics) are subject to testing at the discretion of Product Development/Quality Control, who should specify the tests to be conducted depending on the area of interest/risk. The testing is conducted by the independent approved lab.

3.3 The Agent samples or cross source samples which already have been evaluated and approved (ref. Section 4, Subsection 7) must be tested against the appropriate finish goods standard. For fabrics, unless otherwise mentioned, only 1 colour (the darkest ones) per fabric/finish will be made as the Agent Sample, and will be as such tested for both physicals and colourfastness. For the other colours, the finishing approval will be given on the 1st mass production, and they will be tested only for colour fastness.

3.4 The approval of the product for physicals is shown on the Sourcing plan, by means of the letter "L", in the column **Lab Approval** which indicates that mass production can commence. A letter "F" indicates that the test is rejected for physicals (Exhibit 1.3). Letter "R" indicates physicals must be tested out of the bulk.

3.5 Any change to the finished goods standards must be documented and submitted to the Quality Department for approval. (ref. Section 4, Subsection 7).

3.6 Testing is performed in the facility lab for tests that can be performed locally and if the laboratory is certified for these tests. Testing should include tear, tensile, pH and crocking and for some it could include pile fastness, stretch & growth, seam appearance, smoothness and crease retention (depending on the product range). All other tests will be performed by Product Development

3.7 Testing should commence on the day the samples are sent for approval.

| Release | Style | Fabric Supplier | Fabric code | Supplier | Size set Approval | Lab Approval |
|---|---|---|---|---|---|---|
| 2015 - W2015 | SHD09 | Name | DC1985 | Lever | Yes | L |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

L: Physicals approved.
F: Physicals substandard
R: Physicals must be tested out of the bulk.

**Internally Made and Fully Purchased**

3.9 Unless otherwise stated, testing will comprise of all the tests listed in the product performance standard. The standard(s) relevant for each garment will be assigned by the Product Development and Quality Control.

3.10 For garments that are produced in more than one colour-way full tests will be carried out on a selected colour and then the remaining colours will just be tested for colour fastness parameters and pH.

3.11 For garments with an anticipated risk a complete test report should be available in order that a decision can be made to accept or reject.

3.12 All testing must be carried out by an approved laboratory, either in the contractor's facility or an Independent Lab. A list of approved independent laboratories can be found in Subsection 7.

3.13 Any change to the finished goods standards must be documented and submitted to Quality Control for approval (ref. Section 4, Subsection 7).

3.14 When one or more results are below the minimum standard requirements the options are:
- improvement plan to achieve standards
- standard by exception agreed
- product dropped

3.15 Trims must be presented both in raw material state and after the finishing treatment attached to garments and to swatches.

3.16 The contractor should make sure that all trims used on garments for R.M.Williams pass the specifications testing as detailed in Product Performance Standards.

4.1 Fabrics
All fabric produced for R.M.Williams requires physical testing in mass production. Results must be sent to Quality Control Manager and failures should be clearly highlighted and attention brought to them.

4.2 Garments
Each finished garment supplier (Owned & Operated or contractor) has the obligation to test samples from mass production for physical testing:

- For a new product with no history, 1 unit from each Production Order must be evaluated.

- For a product with good historical performance, frequency of testing can be reduced to a full test on one unit/ week of each fabric/finish combination produced during that week.

- For a product with problematic performance, the frequency of testing is intensified, and could go back to 1 unit/ Production Order.

The facility's Quality Manager should subject the frequency of testing to regular review. The frequency level must ensure adequate monitoring of product performance. It is then the responsibility of the facility's Quality Manager to identify whether testing of units, over and above the minimum, should comprise testing of all parameters or only the critical/problematic performance area(s).

4.3 Mills / Finishing centres/ Contractors which have a laboratory approved by R.M.Williams can perform requested tests. Otherwise, testing will be performed in approved independent laboratory.

4.4 It is the responsibility of the Mills/ Contractors to ensure that the required procedures are followed.

4.5 Any change to the existing fabric physical performance standards must be documented and submitted to the Quality Control Department for approval.

4.6 Tests involved:

Unless otherwise requested, testing in bulk production will comprise the following analyses:

| | Fabrics | Garments | Knits |
|---|---|---|---|
| Fabric Weight | X | | X |
| Tensile Strength | X | X | |
| Tear Strength | X | X | |
| Flex Abrasion (denim only) | X | | |
| Martindale Abrasion (non-denim only) | X | | |
| Dimensional Stability to Washing (or dry-cleaning if applicable) | X | X | X |
| Pile fastness *(corduroy only)* | X | X | |
| Pilling *(brushed/ hairy only for wovens, all knits)* | X | | X |
| Skew movement *(twill fabrics only)* | X | | |
| Stiffness *(bottomwt denim fabrics only)* | X | | |
| Warp Elongation *(bottomwt denim fabrics only)* | X | | |
| Stretch and Growth *(stretch only)* | X | X | |
| Bond/peel Strength *(bonded products only)* | X | X | |
| Ironability (Easy to Iron fabrics) | X | | |
| Smoothness *(STA-PREST®, Durable Press, Easy Care products only)* | X | X | |
| Crease Retention *(STA-PREST®, Durable Press, Easy Care products only)* | X | X | |
| Seam Appearance *(STA-PREST®, Durable Press, Easy Care products only)* | | X | |
| Water Repellence (where applicable) | X | X | X |
| Oil Repellence (where applicable) | X | X | X |
| Soil & Stain Release (where applicable) | X | X | X |
| pH | | X | |
| Colourfastness to Crocking – dry/wet | X | X | X |
| Body Twist (Spirality) / Twisted Legs # | | X | X |
| Appearance after Washing | | X | X |

# Pressing should not be done after 3 home washes

Any fabrics sold as rigid should include the additional tests required for garments, for example pH.

For woven integrated facilities testing should comprise of garment tests and any fabric test not included in the garment list, for example abrasion and pilling.

In the event of a "FAIL" of any Mass Production test:

**1. The PO should not be shipped**

Before Step 2: In the case of twisted legs the PO should be subject to an additional "Final Audit" with focus on twisted legs

- **Pass** at this point should move to step 2.
- **Fail** at this point should be reported to Quality Control
  - Decision will be taken in consultation with Commercial Operation and Quality Department using the Standard by Exception process.

**2. Further physical tests of the Mass-Production should be carried out on 5 full garments (In this case for twisted legs)**

- **Pass** at this point should allow the PO to be shipped
- **Fail** at this point should be reported to the Quality Control
  - **Decision** will be taken in consultation with Commercial Operation and Quality Department using the Standard by Exception process.

## 5.1. Trims Mass Production

5.1.1. All trims used with R.M.Williams®/ Stockyard® garments must be evaluated (physical/ visual) by trims suppliers.

5.1.2 Ongoing/ carry over trims testing should be performed monthly with following quantities:

| | |
|---|---|
| Pocketing | 1.5 meters (full width) |
| Zippers | 7 loose zips<br>8 sewn onto a panel for each finishing treatment required |
| Button/Rivets/Snaps | 18 loose samples<br>5 sewn onto a panel for each finishing treatment required<br>5 sewn onto a separate panel – no finishing |
| Labels (excluding leather-like) | 13 loose samples<br>6 sewn onto a panel for each finishing treatment required |
| Leather like labels | 13 loose<br>12 sewn onto a panel for each finishing treatment required |
| Threads | 2 cones of minimum 500 m each |
| Knit Trims/Elastic/Draw Strings/Tape | Length of minimum 10 m |
| Carton box | 5 boxes to be tested in local independent laboratory |

The supplier needs to inform Quality Control about change of processes and needs to demonstrate that the change(s) does not prevent the trims to pass Quality Standards & Guidelines.

## Independent Certified Labs

**Hong Kong**
Lab Name: Bureau Veritas Hong Kong Limited
Address: 1/F, Pacific Trade Centre
2 Kai Hing Road, Kowloon Bay, Kowloon, Hong Kong.
Contact Person: Ms. Josephine Lee

**New Zealand**
Lab Name: LASRA
Address: 69 Dairy Farm Road, Fitzherbert Science Centre,
4472 Palmerston North, NEW ZEALAND.
Contact Person: Peter Roy