FABRIC QUALITY GUIDELINES

STANDARD OPERATING PROCEDURE (SOP)

Revision Date: MAY 11, 2022

J.CREW Madewell J.CREW FACTORY

J.CREW GROUP, LLC.

STANDARD OPERATING PROCEDURE (SOP)

FABRIC QUALITY GUIDELINES

SOP #:

DATE ISSUED: **MAY 11, 2022**

ISSUED BY: **RAW MATERIAL TEAM**

OBJECTIVE: This Fabric Quality Guidelines provide all JCrew, Factory & Madewell fabric suppliers and garment manufacturers with the bulk fabric inspection tolerances of different types of fabric items as well as the handling of color shading issues through the escalation process.

SCOPE: For all JCrew, Factory and Madewell woven and knitted fabrics supplied by nominated fabric suppliers or vertical vendor sources

---

FABRIC QUALITY GUIDELINES

Development Standard

1. J.Crew Fabric team review FIS, QPS & Primary Test Report to confirm fabric meets J.Crew bulk performance standard.

2. Any standard accepted out of J.Crew tolerance should be collaboratively accepted between J.Crew Fabric team, QA, Sourcing, Design & Merchants.

3. Bulk fabric performance standard is set, as well as acceptable bulk tolerance.

4. Bulk fabric quality is standardized for fabric handfeel, appearance, specification, etc. before proceeding into bulk production.

Bulk Fabric Testing & Inspection (4 Points System)

Bulk Fabric Testing

Mill and factory should reference J.Crew Group, LLC Vendor Direct Technical Services Guide for all J.Crew fabric testing protocols. Document can be found in below path:

1. www.jcrewimports.com/Packinglist
2. Click vendor manual
3. Vendor Direct Technical Services Guide
4. Section 9.2 Fabric Testing

Vendors are recommended to obtain the PASSED bulk fabric test report from fabric supplier prior to bulk fabric shipment.

Inspection Conditions

• All fabrics are to be graded from a distance of three (3) feet while running face up over an inspection frame. The frame should be illuminated by a minimum of two; forty-watt fluorescent lights as well as have back lighting capabilities.

• Maximum inspection speeds should be compatible with the inspector's ability but not to exceed twenty (20) yards per minute.

Penalty Point Evaluation

Defects in both the warp / fill and course / wale direction are assigned points as follows:
1 Point - Defects up to 3"
2 Points - Defects greater than 3" but less than 6"
3 Points - Defects greater than 6" but less than 9"
4 Points - Defects greater than 9"
All severe defects are assigned the maximum penalty of 4 points. (i.e.: A hole regardless of size is always 4 points.) Continuing conditions such as barre, uneven finishing, or side to side shading is assigned 4 points per linear yard.

FABRIC QUALITY GUIDELINES

Point Calculation

Calculations are based upon a square yard computation using the following formula:

Points / 100 Square Yards = Total Points x 3600

Inspected Yards x Ticketed Fabric Width

Acceptable Point Count Levels Guidelines

Any individual roll with point count levels that exceed J.Crew requirement guidelines below shall be graded as second quality and removed from the shipment. A shipment will fail if the shipment point count exceeds the specified level. Due to the continuous complexity of

fabric and finishing we have classified fabrics into levels by fabric construction or fabric type. If construction is not listed, acceptable point counts should be negotiated at the time of purchase. Levels of tolerance must be mutually agreed by the vendor and fabric suppliers prior to the purchase.

	Individual Roll	Total Shipment
Level 1 Tailored Suiting Fancy Shirting Worsteds	15 Pts. /100 Sq.Yds	10 Pts. /100 Sq.Yds
Level 2 Denims Twills Canvas Oxford Shirting	20 Pts. /100 Sq.Yds	12 Pts. /100 Sq.Yds
Level 3 All Silks Stretch Fabrics Plain Weave Fabrics	23 Pts. /100 Sq.Yds	15 Pts. /100 Sq.Yds
Level 4 Corduroy/Velvet Circular Knits	28 Pts./100 Sq. Yds	20 Pts./100 Sq.Yds
Level 5 Linens	40 Pts. /100 Sq.Yds	32 Pts. /100 Sq.Yds
Level 6 Madras Hand weaves	50 Pts. /100 Sq.Yds	40 Pts. /100 Sq.Yds

Inspection Quantities

The minimum quantity of material inspected for each color / pattern is as follows.

LOT SIZE INSPECTION QUANTITY

Up to 2500 Yds. 100%

2501 - 5000 Yds. 20%

5001 - 20,000 Yds. 10%

Rolls will be randomly selected by the inspector.

Vendors are recommended to obtain the fabric inspection report of the bulk fabrics done by the fabric supplier and conduct their own internal inspection upon receipt of the bulk fabric based on the inspection guidelines agreed mutually with the fabric supplier.

Fabric Width

Cuttable fabric width will be checked a minimum of three times during the inspection of any roll. Rolls less than the contracted cuttable width will not be accepted.

Shade Lot Matching

Each mill is required to sort and group all shipments by shade lot. Maximum shade lots generally should not exceed three groups. Each shade group's tolerance should be measured against the approved standard and shall not exceed an AATCC gray scale rating of Class 4 - 5. If utilizing color spectrophotometer readings, the following guidelines must be adhered to:

- Hardware: Close tolerance spectrophotometer
- Color Difference Formula: Results given in LCH (Lightness, Chroma, Hue)
- Light Source Evaluation: Primary: D65, Secondary: Inca-Store Light

FABRIC QUALITY GUIDELINES

- Option Settings: UV included, Specular included, 10-degree standard observer
- Sample Presentation: Small aperture Color Tolerance: delta E 1.0

Visual Assessment

Please refer to the Lab Dip department manuals for complete details of proper lightbox settings for review and assessment. They are located in the download area of the Packing List Section in jcrewimports.com (same area as the vendor manual). Documents to reference are Color Process Vendor Manual and Lab Dip Services Manual. The inspector must take full-width shade swatches (max. 12") from each roll/shade group inspected. Rolls that exhibit side to side or end to end shading exceeding Class 4 - 5 will not be accepted.

Roll Length

Rolls that deviate more than 2% from the stated length on the roll ticket will be rejected. SPLICES Maximum splices per roll: 3, with a minimum of 20 yards in length.

Bow/Bias

Fabric Width	Solids	Stripes
45"	1.0"	0.75"
60"	2.0"	1.50"
90"	3.0"	2.00"

Fabric Weight

Fabric weight will be checked a minimum of two times per inspection using ASTM / AATCC approved punches and scales.

Fabric Odors

No rolls will be accepted that exhibit objectionable odors.

Bulk Fabric Side Center Side Color Shade Handling

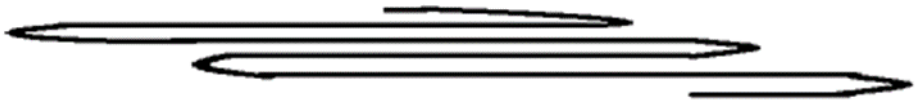
Side to side or side/center/side or lengthwise shading within a roll can have a serious impact on fabric utilization, garment rejection and Garment RTV, therefore the J.Crew standard for shading is "No Visible shading within a roll".

It is therefore the responsibility of the fabric mill to ensure that appropriate controls are in place to either control fabric shading during manufacture or remove shaded rolls during mill final inspection. For certain fabric/color combinations control of shading within a roll is more critical and therefore of utmost importance that clear and unambiguous standards are available prior to production to manage these shades with the minimum impact. For garment manufactory, cutting should hold once shading found in fabric inspection. Brand Technical Manager should notice J Crew Technical Manager to take immediately actions.

Fabric shading will be assessed as follow:

1. A 10 inches long full width strip of fabric will be cut from the first and last end of each roll and marked clearly which is the roll front or the roll end with Delta E reading of side, center, side being provided

2. Both strips will initially be assessed for shading across the piece - right side, center, left side. This is achieved by folding the strip three times to bring the right side, center, and left side together as shown below



3. A second assessment of shading will also be required for both strips as follows. Cut the strip into five equal parts and mark each part 1 through to 5 in the order they were cut. The five parts will then be re-sewn in the sequence 4, 1, 3, 5, 2 and finally sew piece 2 to

4 to create a loop to assess side/center/side shading, as shown below (example using Front strip and repeat the sample for the End strip)

F1	F2	F3	F4	F5

F4	F1	F3	F5	F2



4. If visible and obvious shading is detected during this assessment the dyed fabric is rejected and the mill will re-dye new fabric.

5. If there are no signs of shading, the fabric supplier should submit the stripes above plus two 2 yards full width samples that represent the dyed fabric to the garment vendor/s concerned before bulk fabric shipment.

6. Fabric supplier should also provide their batch lot shade samples to Vendor before bulk fabric shipment and indicate the respective lot shade quantities in the packing list.

7. Vendor when received the bulk fabric shipment should carry out their internal fabric inspection (as per JCrew Acceptable Point Count Levels) and shade assessment (by following the above step 1 to 3 and compare to the strips & sample provided by the fabric supplier). If there's any discrepancy being found, vendor must immediately notify J.Crew QA Department and copy the related J.Crew Production and Fabric team.

8. If J.Crew QA team has question about the shading on garments even though the fabric shade assessment is satisfactory, vendor may be requested to submit a minimum of 6 pieces garment mockup samples using the normal marker for further assessment.

9. If the garment mockup samples are approved, QA team will sign and pass those samples back to vendor to be the standard of production and inspection.

10. If the six garments are rejected for shading these become the "rejected" standard for production. QA team will also mark & sign on the samples for keeping in factory.

11. In case if a special shade marker would improve the shading in the garments, vendor can propose to submit further sample mock up for QA team to review by following the step 7 to 9. Shaded mini markers should be submit and cutting should hold until J Crew QA Department confirm.

Bulk Fabric Quality Issue Escalation Process

1. Once bulk fabric quality issue is discovered, Mill and factory work to resolve issue first before notifying J.Crew. Bulk production cutting should hold until Mill and factory aligned.

2. If factory and mill unable to resolve issue within 3 days, Factory should notify J.Crew Sourcing (Production, QA & Fabric teams) of fabric quality issue.

3. J.Crew Sourcing to notify J.Crew Fabric team. Sourcing & Fabric Team to align on proper course of action contingent upon circumstances.

A. determine chargeback amount or who is responsible for air charges to maintain original garment delivery

B. determine to drive resolution at mill level or factory level (or both).
    a. FTY = Sourcing
    b. Mill = J.Crew Fabric Team

C. Loop in J.Crew Fabric team & NY/HK QA team for support

D. Evaluate future allocation strategy based on severity of issue