
AFMA/JIFSC

Chenille Task Team Minutes

(05/28/03)

Task Team Mission Statement:

"Identify potential causes of, and solutions to, the four major chenille quality issues"

- ◆ ***Seam-Slippage***
 - ◆ ***Pile Direction (reverse pile)***
 - ◆ ***Pile Loss***
 - ◆ ***Color Uniformity (lot-to-lot)***
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I. Seam - Slippage

Problem Definition — “Chenille fabrics exhibiting high levels of seam-slippage failures, ... disproportionately higher on upper-end chenilles”

Problem Scope & Location

- a. Welt Cords
- b. Cushions (sides and backs at wear points)
- c. Non-backed chenilles – yarns unraveling within seam allowance

Potential Solutions (informational)

Fabric

- a. Use binder picks
 - b. Needlepunch fabrics Take caution with chenille fabrics, as excessive needling may damage chenille core system.
 - c. Back coat fabrics
 - d. Decrease float length
 - e. Back Coating Balance amount for strength and soft hand.
 - f. Backing Consistency Important to maintain consistent backing level
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I. Seam - Slippage

Potential Solutions (informational)

Furniture

- a. Biased welts
 - b. Reinforced seams -controlling unraveling
(glue, hot melt, tape) Taping seams has been found to be more effective in apparel weight text than heavier upholstery weight text
 - c. Increase seam allowance
 - d. Consistent stitches per inch 7 spi target range 5 to 8 spi.
 - e. Serging edges
 - f. RAFT Chemical treatments have been found to degrade backing strength, and correspondingly seam strength into
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I. Seam - Slippage

Action Item(s)

- a. Develop a test that better predicts yarn unraveling within seam allowances (consider former Berkline method).
Responsible parties – Dave Ryan, Hugh Talley

 - b. Develop a test that better predicts yarn unraveling within seam allowances (consider former Dupont method).
Responsible party – Hugh Talley

 - c. Collect samples of “good” and “bad” raveling fabrics, for develop the test method – 1.0 yard non-backed samples.
Responsible party - All
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H. Pile Direction/Reverse Pile

Problem Definition — “Roll goods are received with chenille yarn in two directions”

Problem Scope & Location

- a. Defect is only visible from sides of the roll
- b. Defect occurs w/in rolls, as opposed to several rolls from a shipment
- c. No noticeable trends, i.e. cotton, vs. olefin, vs. acrylic chenilles

Potential Solutions (informational)

Fabric

- a. Ensure chenilles are inspected from sides of perch
- b. Train and audit chenille sub-suppliers (internal or external)

Furniture

- a. N/A — Problem is detectable and correctable by the fabric manufacturer.
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III. Pile Loss

Problem Definition — “Chenille fabrics can be prone to excessive pile loss, despite heavy duty abrasion ratings”

Problem Scope & Location

- a. More likely to occur in heavy use applications – Motion Furniture
- b. Unbacked fabrics more likely to experience premature wear

Potential Solutions (informational)

Fabric

a. Float length

All else being equal, shorter floats perform better than longer floats

b. Latex application

More latex penetration into the back of the fabric improves pile retention

c. Twist levels of chenille yarns

All else being equal, higher twist = higher pile retention

d. Cotton duct Wyzenbeek test better predictor than wire

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III. Pile Loss

Potential Solutions (informational)

Furniture

- a. Consider abrasion characteristics vs. intended use. For example, motion vs. stationary, vs. decorative pillows.

Action Item(s)

- a. Tape Test:

Quaker to Tape Test , which has been a useful tool for predicting chenille wear performance.

- b. Wyzenbeek Cotton vs. Wire:

Conduct round-robin abrasion testing among: Quaker, Craftex, Solutia, Norwalk, Ashley, Burlington, and Diversified

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IV. Color Uniformity

Problem Definition — “Color uniformity between rolls/lots is a challenge for chenille fabrics. The small lot sizes associated with cotton and rayon chenilles exacerbates the issue”

Problem Scope & Location

- a. Problem more pronounced with upper-end fabrics (Rayon and Cotton Chenilles)
- b. Suppliers switch standards (color targets) frequently

Potential Solutions (informational)

Fabric

- a. Synthetic fibers tend to have improved color uniformity compared to their cotton and rayon chenilles counterparts.
 - b. Chenilles manufactured from package dyed or PDF yarns tend to be more uniform in color than package and skein dyed chenilles.
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IV. Color Uniformity

Potential Solutions (informational)

Fabric (continued)

- c. Changes in backing can impact the color value of the face.
- d. Undergo a swatch verification procedure with customers.
- e. Notify customers when sub-suppliers (dyers) have been changed.
- f. Re-swatch if changed supplier results in a significant color shift.
- g. Control filling and warp yarn tensions at weaving
- h. Larger yarn lot sizes (reduces color variation from lot-to-lot issues)
- i. Control post-finishing processes, differences in heat, time, chemicals, etc. can have a significant impact on color

Furniture

- a. N/A
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