



## MANUFACTURING GUIDELINES

PrimaLoft, Inc. prides itself in the quality of its products and we ask that you support our philosophy through your manufacturing processes.

**It is very important to allow at least 24 hours conditioning time after insulation is opened in order to achieve maximum loft.**

### CUT & SEW RECOMMENDATIONS

- While your PrimaLoft® insulation is in inventory awaiting processing, it should be stacked horizontally, not more than six feet high, symmetrically or in a way that all ends are flush.
- A non woven one-sided scrim is included with the shipment of many of our insulation products. The purpose of this scrim is to aid in rolling and unrolling the batting. The scrim does assist in reducing, but does not prevent fiber migration.
- A localized water mist will aid in dispelling static from PrimaLoft® insulation products during cutting and handling. Some operators have been very successful with hand spray bottles.
- Some cutters have excellent productivity stacking alternating layers of PrimaLoft® insulation, shell and liner.
- The ultra-fine fibers in PrimaLoft® products require sharp cutters and scissors. Use thin, sharp needles with a slim point and no burrs.
- When cutting, use a straight knife machine with a sharp, tapered, rounded-tip blade and a relieved throat plate. Also, use heavy Kraft paper on the bottom of the stack to act as a barrier to keep the insulation out of the throat plate.
- Capturing a quilt line when working with small or long, thin-cut sections (collars, pockets, etc...) will aid in handling.
- It is advantageous to overcast or serge the edges of some or all cut pieces. An extra wide presser foot will hold better during edge stitching. Single needle basting is also preferred. Care taken at this step will pay off in the final assembly and garment quality.
- We recommend a velour or tape lint brush to clean garments. If humidity can be added to the areas processing PrimaLoft® insulation, it will improve handling. If garments are to be steamed (do not steam press), they can be cleaned immediately after steaming.

### WASH/CARE INSTRUCTIONS

 - Machine wash and rinse in cold water, gentle cycle.

 - Tumble-dry warm, remove promptly from dryer.

 - Do not bleach, iron or steam press.

 - Do not dry clean.

- Do not use fabric softeners.



## QUILTING RECOMMENDATIONS

- PrimaLoft® insulation can be quilted between two layers of our non-woven scrim. We recommend a straight channel or a wave pattern to assure maximum loft.
- Care should be taken to minimize tension on the insulation roll. This will avoid stretching and help maintain the accurate weight of your PrimaLoft® insulation.
- PrimaLoft® insulation is a pure, white product. Care should be taken to keep handling and quilting areas clean to reduce dirt pickup wherever possible.
- New sharp, fine needles with slim points and no burrs should be used in the sewing and quilting process.
- The thicker the PrimaLoft® insulation the greater the cross-machine quilt dimensional shrinkage.
- Both roll up and feed rolls should be aligned to reduce telescoping.





## FABRIC RECOMMENDATIONS

Most PrimaLoft® Insulation utilizes microfiber technology to deliver superior thermal performance. The fibers in some PrimaLoft® insulation products are extremely fine and should be combined with high quality down-proof fabrics. If this is not done, the potential for fiber migration exists in the final product.

In general, fabrics considered to be “down-proof” that have the following minimum thread count specifications tend to work well with PrimaLoft® insulation.

Imperial Units		Metric Units	
YARN COUNT (denier)	THREAD COUNT (picks/inch)	YARN COUNT (decitex)	THREAD COUNT (picks/cm)
20	350	22	138
30	330	33	130
40	310	44	122
50	290	55	115
60	270	66	107
70	250	77	99

The number of yarns in the warp count versus the fill count should be somewhat equal. Significant differences in warp versus fill could lead to fiber migration even if a fabric meets the above thread count specifications. While thread count is an indicator of the quality and “down proofness”, it is not the only factor. Fiber quality, weave, and fabric finish also play an important part in migration resistance. A fabric air permeability rating of < 1 CFM for unlaundered fabric can also be used as a preliminary screening of fabrics for use with PrimaLoft® insulation.

All fabrics to be used in conjunction with PrimaLoft® insulation (both outer shells and liners) need to be tested to determine the potential for fiber migration. Since fabric migration resistance can also vary by color and by dye lot, it is highly recommended that you test all fabric lot numbers prior to production.



## FIBER MIGRATION

Our experience suggests that the following testing guidelines will in most cases identify a potential migration problem:

- Fiber migration caused by static mechanisms can be determined by sewing a 12"x12" (30cm x 30cm) pillow with all components as will be used in the final garment construction. It is recommended that the pillow be tumbled in a residential clothes dryer on the "air" setting for 35-45 minutes using 1 pound (0.5kgs) of rubber stoppers. Upon completion of the cycle, remove the pillow and closely inspect the surface for migrating fiber ends. Tape should be utilized to thoroughly scan the surface of the pillow. If fibers appear after this initial test, the fabric should not be used in combination with PrimaLoft® insulation.
- Fiber migration due to laundering can be determined by sewing a 12"x12" (30cm x 30cm) pillow with all components as will be used in the final garment construction. It is recommended that the pillow be laundered at least 3 times in cold water on the gentle cycle and tumbled dry. After each wash and dry cycle, the fabric surface should be inspected for migrating fiber ends.
- PrimaLoft, Inc. recommends that when conducting fiber migration testing, approximately 1 pound (0.5kgs) of rubber stoppers (3" x 3" [7.62cm x 7.62cm] dimension) be used during the dry cycle to simulate an environment where friction is apparent. This will more accurately depict "in use" fiber migration.
- Count and record the number of fibers migrating through the fabric after each cycle for both sides of the pillow. We observe the following grading system for fabrics:
  - Zero fibers counted - migration resistant
  - Less than 3 fibers counted - acceptable migration
  - Less than 10 fibers counted - mild migration
  - Less than 20 fibers counted - moderate migration
  - More than 20 fibers counted - severe migration
- If fiber migration proves to be a problem for your fabric(s) of choice when using PrimaLoft® insulation, a nonwoven scrim material may be used to minimize the migration of fibers through the fabric. As stated in our quilting recommendations, some PrimaLoft® insulation products come with a scrim on one side to aid in handling. If additional scrim material is needed, please contact your PrimaLoft® Customer Service Representative.

NOTE: PrimaLoft® Gold Insulation Active+, PrimaLoft® Gold Insulation Active and PrimaLoft® Silver Insulation Active are migration resistant, but should still be tested for fiber migration.

**WARNING: It CANNOT be assumed that fabrics identified as "down proof by construction" will be satisfactory for use with PrimaLoft® insulation. PrimaLoft, Inc. disclaims any responsibility for fiber migration problems, including any that are not identified using the above testing guidelines. All customers should test all proposed fabric and insulation combinations using these or other methods in order to determine suitability.**