

Garment Manufacturing Construction Guidelines and Care

The garment manufacturer is in the best position to assure customer satisfaction by:

1. Selecting appropriate shell and lining fabrics, including findings and recommended scrim, for the application.
2. Following the construction guidelines, supplied by 3M, for the design and manufacture of each garment.
3. Determining the proper care label to be sewn into each garment.

General Fabric Recommendations

In many cases the Thinsulate™ Insulation family of products does not require downproof fabrics. However, when using Thinsulate insulation with fabrics that are not downproof, potential for fiber migration can usually be determined.

- Fiber migration due to wash durability can be detected by sewing a pillow of the garment components following the construction guidelines and washing it five times as recommended. Observe the fabric surface for protruding fiber ends.
- Fiber migration due to other mechanisms can be assessed by submitting fabric samples to the 3M Insulation Products laboratory through your sales representative.

The use of fiberproof scrim to separate the insulation from textured shell or lining fabrics, coated, micro-coated, or waterproof/breathable fabrics is recommended. This can be accomplished either by using Thinsulate insulation products having a scrim on one or both sides, or by adding a scrim during the construction process when necessary.

The scrim supplied on certain Thinsulate insulations eliminates the need for preliminary testing of fiber migration from Thinsulate insulation to the fabric surface.

When using coated, micro-coated, or waterproof breathable fabrics, the durability of insulations is decreased because of surface friction and because water cannot be flushed through the garment. Durability can be enhanced by providing a means via openings or vents at the bottom of a garment through which water can be easily expelled to minimize stress on the insulation during agitation and water extraction. Durability may also be enhanced by use of a scrim to support the insulation.

Type C, Type U or Type I

Construction Guidelines

Thinsulate™ Insulation Type C, U, or I may be quilted using conventional quilting equipment.

A quilt-through construction of 4" to 7" channel quilts is recommended. *Thorough garment testing is necessary for quilt dimensions outside of the recommended range.*

Layers may be adhesively laminated prior to quilting.

Care

In WASH ONLY garments use 4" to 7" quilt spacing, quilting Thinsulate insulation between two non-textured surfaces (shell and lining or fabric and scrim). Follow above instructions to check for potential fiber migration.

In DRY CLEANABLE garments use 4" to 7" quilt spacing, quilting Thinsulate insulation between two non-textured surfaces such as nylon or polyester taffeta, or scrims.