

3M
THINSULATE™
Insulation

ELITE ECO



3M™ Thinsulate™ Insulation **100% Recycled Featherless** (FL-R100)

Discover the real power of synthetic insulation—3M™ Thinsulate™ 100% Recycled Featherless Insulation is built entirely of recycled material and is engineered to replicate natural down.

features

- 100% Recycled polyester
- Animal-free alternative to down
- Retains on average about 80% of Clo value after 10 washes
- Provides versatile design capabilities



Light as
natural down



Performs
when wet



Extremely
warm



Highly
compressible

ideal for

- Performance apparel
- Accessories
- Outerwear
- Bedding

certifications



partner benefits

When you choose 3M™ Thinsulate™ Insulation, you're choosing a world-renowned product paired with worldwide service. Partner with us and discover the power of our:

global locations



With a **local presence in more than 70 countries**, we can easily work with you and your mill, supporting your production needs from start to finish.

technical expertise



As a company driven by science, we can perform **more than 20 comprehensive tests on our insulation**, carefully evaluating critical features such as compression, thermal resistance, water absorption, and more.

brand



Recognized as a world-class brand, we'll work with you to **support your marketing and sales efforts.**

| Basis Weight of Insulation (g/m ²) | Construction Method | Channel of Quilt Spacings | | | | | |
|------------------------------------------------|---------------------|---------------------------|--------------|---------|------------------|----------|----------|
| | | 1.5" x 1.5" | 3" x 3" | 4" x 4" | 2" x 12" | 3" x 12" | 4" x 12" |
| 400 | Direct Sew | | | | | | |
| 300 | Direct Sew | | | | | | |
| 200 | Direct Sew | | Reccommended | | | | |
| 200 | Channel Fill | | | | | | |
| 100 | Direct Sew | | | | Not Reccommended | | |
| 75 | Direct Sew | | | | | | |

| Quilt Line Spacing | Construction Method | Basis Weight (g/m ²) | Thermal Resistance, clo per ASTM F 1868 * |
|--------------------|---------------------|----------------------------------|-------------------------------------------|
| 1.5" x 20" | Direct Sew | 130 | 1.6 |
| 1.5" x 20" | Channel Fill | 160 | 1.7 |
| 2" x 20" | Direct Sew | 180 | 2.2 |
| 2" x 20" | Channel Fill | 200 | 2.4 |
| 3" x 20" | Direct Sew | 220 | 3.3 |
| 3" x 20" | Channel Fill | 260 | 3.5 |
| 4" x 20" | Direct Sew | 260 | 4.1 |



Want more protection from the elements? Ask us about the Scotchgard™ Protector that can further enhance the performance of your apparel.



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*Results are based on internal 3M testing of 3M™ Thinsulate™ Featherless Insulation which was lofted using hand carders and quilted in the indicated patterns and filling techniques between a shell and lining fabric. Quilting data are based on limited produced samples and are included here for illustrative purposes only and do not mean that the results obtained by a garment manufacturer will be the same with these or other fabric materials. The quilting and filling conditions used by the garment factory, as well as other variables, may influence results. Manufacturers need to conduct their own testing using their own shell and lining fabrics to determine suitability for their application(s), and whether the garments meet any particular standard or specification.

The Future Of Performance. Sustainably Driven. Scientifically Backed.