



## 3M™ Thinsulate™ Insulation **Flame Resistant** (Type FR)

3M™ Thinsulate™ Flame Resistant Insulation incorporates inherently flame-resistant fibers. It's specifically developed to provide warmth for garments that are designed for momentary exposure to unplanned or accidental flames, heat, or electric arcs.

### features

- 55% Modacrylic / 30% Aramid / 15% Polyester
- Mid-loft
- Easy to work in
- Durable for home and industrial washing
- 2.0-3.0 Clo value



Flame  
resistant



Highly  
durable



Lightweight



Warm

### ideal for

- Workwear designed for electrical, oil, and gas-based work environments.
- Gear that may be exposed to momentary flames, heat, or electrical arcs. (Not for use in protective apparel for proximity fire-fighting, wildland firefighting, structural firefighting, fire entry, technical rescue, or other firefighting operations.)

**Intended uses:** 3M™ Thinsulate™ Flame-Resistant Insulation (Type FR) is strictly a component rather than an end article. Garment manufacturers need to conduct their own testing on full finished garments to determine whether the garments meet any particular standard. It is only intended for use in apparel when in conjunction with applicable fire-resistant shell and liner materials. Not for use in garments intended for certification to EN ISO 11612. Refer to the Technical Data Sheet for proper construction requirements.

## 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 all 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.**

Typical Values*	3M™ Thinsulate™ Insulation (Types FR)										
	Base Weight		Thickness ASTM D 5736 @0.002 psi		Thermal Resistance (R <sub>c</sub> ) ASTM F 1868			Roll Width		Roll Length	
	g/m <sup>2</sup>	oz/yd <sup>2</sup>	cm	inch	clo	R-value	m <sup>2</sup> °K/W	inch	m	Lin. Yard	Lin. Meter
FR 120	120	3.5	1.00	0.40	2.0	1.8	0.31	60	1.52	55	50
FR 150	150	4.4	1.20	0.48	2.4	2.1	0.37	60	1.52	45	41
FR 200	200	5.9	1.55	0.61	3.0	2.6	0.46	60	1.52	35	32

\*Values represent the averages of the population of lots at date of publication



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



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**The Future Of Performance. Sustainably Driven. Scientifically Backed.**

