Chambray™

LIGHTWEIGHT AND COMFORTABLE… PROVEN THERMAL PROTECTION

Chambray thermal liners by Safety Components, made of 100% Dupont™ Nomex® fibers, offer the proven protection and durability expected by fire fighters in their turnout gear thermal liner.

In addition, Chambray provides outstanding comfort. For departments needing reliable, day-in day-out protection in a comfortable wear experience, Chambray is the smart choice.

“70% of the Top 10 Metro Cities specify Safety Components protective fabrics.”

SAFETY COMPONENTS
PROVEN PROTECTION. PROVEN PERFORMANCE. PROVEN DURABILITY.
Chambray Thermal Liner
Chambray by Safety Components has one of the lightest weight face fabrics in the fire service at just over 3.0 oz per square yard. Every ounce of weight reduction counts in a set of turnout gear: ounces make pounds and pounds cause more stress. Chambray, designed using 100% Dupont Nomex fine count spun yarns, is one of the lightest, most durable, and comfortable thermal liners available. Chambray is a great choice for departments wanting a comfortable feel and reliable protection…all at an economical price.

Thermal Liner Purpose and Construction
The main purpose of a thermal liner is to enhance a fire fighter’s thermal protection through its insulative properties of trapped air. Every thermal liner is made by combining two parts, a face cloth fabric like Chambray (closest to the skin) and a batting (insulation layer or layers) which are quilted together.

Levels of Thermal Liner Performance - Face Cloth
There are three primary levels of face cloth performance:

Premium thermal liners like Glide, woven with 60% filament DuPont Kevlar and 40 spun fibers, provide the highest level of comfort and freedom of movement.

Better thermal liners like Chambray, woven with 100% Ring Spun yarn, provide excellent protection and a comfortable feel. Fine count ring spinning was originally developed by Egyptian fabric artisans, as they developed the first high count cotton fabrics for the very wealthy of historic society.

Good thermal liners like Tencate Aralite, woven with 100% Air Jet Spun yarn, provide good protection with a comfort level significantly less than that of Chambray or Ring Spun face cloths.

Levels of Thermal Liner Performance - Batting
Every fire department must make decisions on whether a higher TPP (thermal protective performance) or higher THL (total heat loss) is preferred as the TPP/THL results are typically inverse in performance.

Safety Components uses only the finest materials in our battings. We use pure virgin fiber DuPont Nomex/Kevlar fibers in our needle-punch battings or multiple layers of Dupont E-89 spunlace.

Our Pure Virgin battings, made from virgin Nomex and Kevlar fibers have exacting fiber properties and excellent fiber cohesion that maintain TPP/THL performance after extensive laundering. Most alternative needle-punch products use 30% or more recycled fibers that tend to have lower fiber cohesion and shift after laundering, providing erratic TPP performance.

Multiple layers of Dupont E-89 spunlace are also available with Chambray. This solution, although more expensive, provides the best balance of long term TPP and THL performance over any needle-punch solution.