

## Protection from the Cold - Layering

Dressing properly is extremely important to preventing cold stress. When cold environments or temperatures cannot be avoided, layering winter clothes can help protect workers from cold stress.

**Avoid Single Wash Solutions** - Winter liners that are made of polyester with topical FR treatments are often inaccurately believed or reported to be FR-compliant. The topical treatment does help the liner self-extinguish, but only after the flame source is removed. As long as the flame is present, polyester will do what polyester does: melt, drip, and burn. This treatment is often described as a “single wash,” meaning it will be ineffective after one laundering. Treated polyester products do not meet any FR garment standard appropriate for ARC flash or flash fire hazards such as ASTM F1506 or NFPA 2112. If the job calls for workers to wear clothing compliant to any of the FR garment standards, it is critical that they do not wear PPE with a topical FR treatment. Instead, make sure PPE is made with trusted, compliant materials like Nomex® or modacrylic blends and sewn with flame resistant Nomex® or meta-aramid threads per the appropriate FR performance

### Inner Layer



#### Focus: Keep moisture away from body

Key Fabrics: wool, silk or synthetic (polypropylene) to keep moisture away from the body. Thermal wear, wool, silk or polypropylene, inner layers of clothing that will hold more body heat than cotton.

### Middle Layer

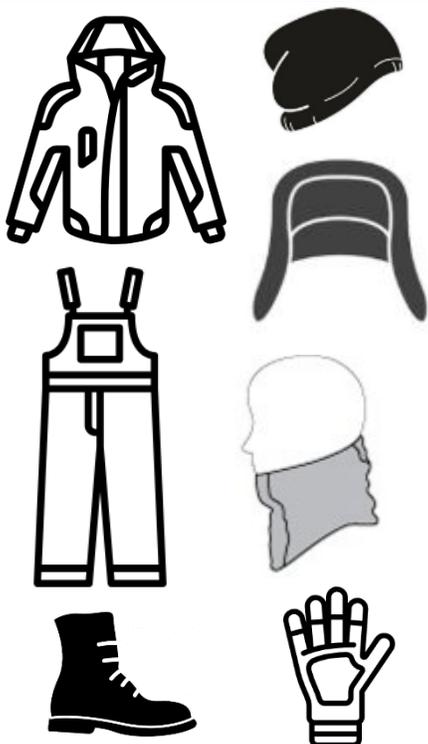


#### Focus: Insulation

Key Fabrics: wool or synthetic to provide insulation even when wet.

Shirt, Sweater, Sweatshirt

### Outer Layer



#### Focus: Ventilation and protection from elements

Key Fabrics: nylon, insulated shells, thermal lining, poly/fleece, acrylics, water-repellent-treatment. Wind and rain protection layer that allows some ventilation to prevent overheating.

##### Head

Hat that will cover your ears as well. A hat will help keep your whole body warmer and reduce the amount of body heat that escapes from your head. Balaclava, Hat, Hard Hat Liners

##### Hands

Insulated gloves (water resistant if necessary), to protect the hands

##### Feet

Insulated and waterproof boots to protect the feet. OSHA recommends warm, insulated and waterproof boots. Waterproof or water-resistant steel-toed boots are also an option when needed. Snow and ice traction cleats, toe warmers