

Garment Performance of Stationwear made of DuPont™ NOMEX™

DUPONT™ THERMO-MAN®

The increased thermal protection that garments made of DuPont™ NOMEX® offer is clearly demonstrated in simulated fire testing using instrumented thermal manikins such as the DuPont™ THERMO-MAN® system.



NFPA 1975, *Standard on Station/Work Uniforms for Fire and Emergency Services*, specifies that garments shall be constructed from flame resistant fabrics, like DuPont™ NOMEX®, or from nominally 100% cotton or wool fabrics.

Fabrics made of DuPont™ NOMEX® brand fiber are lightweight, breathable, and extremely durable. The flame resistant characteristics of DuPont™ NOMEX® are built into the fibers and cannot be washed or worn out of the garment. Garments made of DuPont™ NOMEX® will also maintain their professional look without ironing.

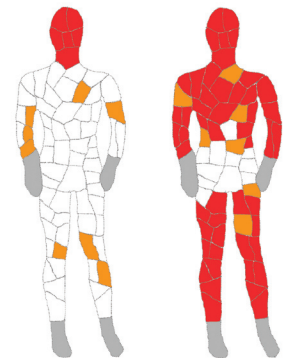
DuPont™ THERMO-MAN® system consists of a life size manikin with 122 thermal sensors used to predict level, extent, and location of potential burns of whole garments in simulated flame exposures. THERMO-MAN® tests are performed in accordance with ASTM 1930 guidelines.

Test Conditions:
 Shirt and Pants
 3.0 sec exposure
 2.0 cal/cm²-sec heat flux
 Cotton undergarments

THERMO-MAN® Burn Injury Profiles

Predictions

- No Burn Injury
- 2nd Degree Burn
- 3rd Degree Burn
- No Information



DuPont™
NOMEX®

100%
Cotton

Total Predicted Body Burn:

20%

85%

Note: The head is uncovered in the test system and contributes to 7% of the predicted body burn.

THERMO-MAN® tests demonstrate that garments made from NOMEX® will not support combustion after short flame exposures, maintaining a protective barrier. 100% cotton garments can ignite, continuing to expose the wearer to flames long after the initial flame event.



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DuPont Personal Protection

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www.PersonalProtection.DuPont.com

All manikin tests are laboratory simulations of fire exposures. These laboratory simulations are severe and tax the performance properties of materials from which the clothing is made. The results of these tests are laboratory predictions of relative burn injury based upon several factors, including fabric type, fabric weight, garment styling and fit, number of launderings, exposure energy and exposure time. The results should not be used to predict garment performance in actual fire situations.

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