

DUPONT™ NOMEX® COMFORT Innovative Comfort, Proven Protection



DuPont™ Nomex® Comfort is the latest innovative fabric solution developed by DuPont scientists for workers in the oil & gas, petrochemical and general manufacturing industries. When it comes to serious workplace hazards such as intense heat and flames, Nomex® Comfort provides the same high levels of proven protection as Nomex® IIIA in a lightweight, breathable, quick-drying fabric, thanks to its unique fabric technology.

Advantages of Nomex® Comfort fabric:

- Provides protection day in and day out because the inherent heat and flame resistance of Nomex® Comfort fibers cannot be washed out or worn away.
- Feels more comfortable because Nomex® Comfort fabric absorbs and holds significantly less moisture than fabrics made with cellulosic fibers, such as cotton and viscose, while also being quick-drying.
- Reduces heat stress and feels cooler for longer because the fabric is lightweight and breathable.
- Looks like new after repeated washings due to excellent durability and laundry colorfastness.
- Available in 4.5 oz/yd² ring spun plain weave and 6 oz/yd² ring spun twill fabrics in a range of colors.
- Garments made of Nomex® Comfort, both 4.5 oz/yd² and 6.0 oz/yd², have been third-party certified to NFPA 2112 *Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*.
- 4.5 oz/yd² fabric arc rating **ATPV = 6.1 cal/cm²** (Category 1) tested to standard ASTM F1959/F1959M-14e1.
- 6.0 oz/yd² fabric arc rating **ATPV = 7.6 cal/cm²** (Category 1) tested to standard ASTM F1959/F1959M-14e1.

Typical physical properties

Property	Standard	Units/Description	Nomex® Comfort 6.0 oz/yd ²	Nomex® Comfort 4.5 oz/yd ²
Basis weight	ASTM D3776	oz/yd ²	6.0	4.5
Tensile strength (Grab test)	ASTM D5034	Warp (lbf)	285	186
		Weft (lbf)	156	162
Elmendorf tear	ASTM D1424	Warp (lbf)	13.6	10.5
		Weft (lbf)	10.2	10.9
Vertical flame	ASTM D6413	Afterflame (secs)	<2	<2
		Char length (in.)	<4	<4
		Melting or dripping	No	No
Thermal protective performance (TPP)	NFPA 1971 Section 8.7	Spaced (cal/cm ²)	14	10
		Contact (cal/cm ²)	9	7.5
Dimensional stability after 5 cycles	AATCC 135	Warp (%)	<3	<3
		Weft (%)	<3	<3
Thermal shrinkage	NFPA 2112 Section 8.4	Warp (%)	<5	<5
		Weft (%)	<5	<5

Predicted body burns

PRODUCT	TOTAL PREDICTED BURN INJURY % (PROTECTED + UNPROTECTED)	LOCATION
Nomex® Comfort 4.5 osy	30.3%	NCSU–Raleigh, NC
Nomex® IIIA 4.5 osy	38.3%	NCSU–Raleigh, NC
Nomex® Comfort 6 osy	18.9%	NCSU–Raleigh, NC
Nomex® IIIA 6 osy	20.2%	NCSU–Raleigh, NC

Fabric composition

93%

DuPont™ Nomex®
meta-aramid

5%

DuPont™ Kevlar®
para-aramid

2%

Carbon/nylon
antistatic fiber

Pilling

Fabrics made with Nomex® Comfort may be susceptible in varying degree to pilling on their surface. Differences in fabric processing, as well as differences in how garments are worn and cleaned, can produce different levels of pilling. The FR properties of Nomex® Comfort fabrics are not affected by the level of pilling.

Colorfastness

Fabrics made with Nomex® Comfort are available in many colors. Due to the color change of fibers after extended exposure to ultraviolet (UV) light, not all colors may be appropriate for all applications. The FR properties of the fabrics are not affected by UV exposure. The change in color will vary according to the color chosen. If the fabrics will be subjected to significant amounts of UV light exposure (sunlight or artificial), it may be desirable to select lighter colors less likely to be affected. Garments made of Nomex® Comfort should be stored so that they are protected from unnecessary exposure to UV light.

Take the next step and choose Nomex® Comfort

Provide workers with the protection and comfort they deserve. Contact us at:

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Product safety information is available upon request.

This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentations. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, DUPONT MAKES NO WARRANTIES AND ASSUMES NO LIABILITY IN CONNECTION WITH ANY USE OF THIS INFORMATION. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right.

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Recommended USE and CARE for DuPont™ Nomex® Comfort fabrics

Single-layer Nomex® Comfort fabrics are not suitable for protection against molten metal splash, hot liquids or steam. Do not wear alone for structural or proximity firefighting. Do not use for chemical protection. Follow all warning, use and care instructions included in the garment manufacturer's label.

Flammable contaminants will reduce the thermal protection of any flame-resistant (FR) fabrics and the garments made from them. Wash all garments made of Nomex® Comfort fabric frequently to ensure that no grease, oil, soil or other flammable contaminants are present when the garment is worn.

For home laundering:

- Wash new garments before wearing to remove fabric processing aids and finishes.
- Launder garments separately from non-flame-resistant clothing so FR garments are not contaminated with flammable lint.
- Wash dark and light colors separately.
- Secure all zippers and snaps before washing and drying.
- Pretreat stains.
- Machine-wash in hot water (maximum 140 °F / 60 °C) with a heavy-duty liquid detergent.
- Do not use chlorine bleach or detergents containing chlorine bleach because these can cause color fading. Only oxygen-based bleach should be used on clothing made of Nomex®.
- Tumble-dry on low heat (maximum 160 °F / 71 °C).
- Do not over-dry. Remove promptly to minimize wrinkles.
- Do not use fabric softeners or dryer sheets. Other laundry additives should not be used if they are flammable.
- Removal of grease or oil stains may require dry cleaning.
- Do not store or line-dry fabrics or garments made of Nomex® in sunlight.



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