Nomex® Essential Arc HiCal

Introducing to the Nomex® portfolio, a brand new, innovative and lightweight fabric developed for workers exposed to arc flash hazards: Nomex® Essential Arc HiCal can provide an impressive ATPV of 12 cal/cm² in a single 6.5 oz/yd² layer.

In addition, multi-layered solutions with Nomex® Essential Arc HiCal are capable of achieving arc ratings exceeding 40 cal/cm² to meet the high performance requirements needed by electrical workers.

Nomex® Essential Arc HiCal helps deliver enhanced protection and comfort needed to take on tough jobs.

Extreme protection

Arc flash protection along with heat and flame resistance

Inherent protection; can't be washed out or worn away

Resists tears and abrasion

Extremely durable and long-lasting protective solutions

Color

Refer to fabric sample for true color representation.

Navy

Weight

6.5 oz/yd² 220gsm (twill only)

Fiber blend

Nomex®, Kevlar®, modacrylic, antistatic fiber

Hazards

Arc flash

Certifications

Nomex® fabric solutions are certified to meet the listed standards.*

ASTM F1506 NFPA 2112 CGSB 155.20** ISO 11612 NFPA 70E

*Certifications for the fabrics vary by region. Contact a DuPont representative for additional details.
**Certification pending.

Fabric protection performance

Property	Standard	Units/description	Nomex® Essential Arc HiCal
Fabric construction	—	—	Twill weave
Basis weight	—	oz/yd² (g/m²)	6.5 (220)
(Arc Thermal Performance Value [ATPV])	ASTM F1959 IEC 61482-1-1	cal/cm²	12
Box test	IEC 61482-1-2	Rating	Class 1

Typical physical properties (ASTM, NFPA)

Property	Standard	Units/description	Nomex® Essential Arc HiCal
Fabric construction	—	—	Twill weave
Basis weight	ASTM D3776	oz/yd²	6.5
Tensile strength (Grab test)	ASTM D5034	Warp (lbf) Weft (lbf)	183 101
Elmendorf tear	ASTM D1424	Warp (lbf) Weft (lbf)	7 10
Heat transfer performance (HTP)	NFPA 2112 Section 8.2	Spaced (cal/cm²) Contact (cal/cm²)	11 6
Shrinkage after 5 home laundering cycles	AATCC 135	Warp (%) Weft (%)	<3 <3

Typical physical properties (ISO, EN)

Property	Standard	Units/description	Nomex® Essential Arc HiCal
Fabric construction	—	—	Twill weave
Basis weight	ISO 3801	g/m²	220
Tensile strength	ISO 13934-1	Warp (N) Weft (N)	922 535
Tear strength	ISO 13937-2	Warp (N) Weft (N)	35 35
Dimensional stability	ISO 5077	Warp (%) Weft (%)	<3 <3

Suitable to be used for arc flash protection as per NEC, NESC, NFPA 70E and OSHA requirements.

Discover more about DuPont™ Nomex® Essential Arc HiCal

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DuPont Personal Protection