

# 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/cm<sup>2</sup> in a single 6.5 oz/yd<sup>2</sup> layer.

In addition, multi-layered solutions with Nomex® Essential Arc HiCal are capable of achieving arc ratings exceeding 40 cal/cm<sup>2</sup> 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 longlasting protective solutions

## COLOR

Refer to fabric sample for true color representation.



Navy

## WEIGHT

6.5 oz/yd<sup>2</sup> 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 Arclin representative for additional details.

†Certification pending.

## Fabric protection performance

| PROPERTY                               | STANDARD                 | UNITS/DESCRIPTION                      | NOMEX® ESSENTIAL ARC HICAL |
|----------------------------------------|--------------------------|----------------------------------------|----------------------------|
| Fabric construction                    | –                        | –                                      | Twill weave                |
| Basis weight                           | –                        | oz/yd <sup>2</sup> (g/m <sup>2</sup> ) | 6.5 (220)                  |
| (Arc Thermal Performance Value [ATPV]) | ASTM F1959 IEC 61482-1-1 | cal/cm <sup>2</sup>                    | 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/yd <sup>2</sup>                                              | 6.5                        |
| Tensile strength (Grab test)             | ASTM D5034               | Warp (lbf)<br>Weft (lbf)                                        | 183<br>101                 |
| Elmendorf tear                           | ASTM D1424               | Warp (lbf)<br>Weft (lbf)                                        | 7<br>10                    |
| Heat transfer performance (HTP)          | NFPA 2112<br>Section 8.2 | Spaced (cal/cm <sup>2</sup> )<br>Contact (cal/cm <sup>2</sup> ) | 11<br>6                    |
| Shrinkage after 5 home laundering cycles | AATCC 135                | Warp (%)<br>Weft (%)                                            | <3<br><3                   |

## Typical physical properties (ISO, EN)

| PROPERTY              | STANDARD    | UNITS/DESCRIPTION    | NOMEX® ESSENTIAL ARC HICAL |
|-----------------------|-------------|----------------------|----------------------------|
| Fabric construction   | –           | –                    | Twill weave                |
| Basis weight          | ISO 3801    | g /m <sup>2</sup>    | 220                        |
| Tensile strength      | ISO 13934-1 | Warp (N)<br>Weft (N) | 922<br>535                 |
| Tear strength         | ISO 13937-2 | Warp (N)<br>Weft (N) | 35<br>35                   |
| Dimensional stability | ISO 5077    | Warp (%)<br>Weft (%) | <3<br><3                   |

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

ARCLIN

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