# Arc Flash Protective Clothing PPE

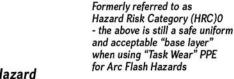
Some time ago OSHA identified Arc Flash and Arc Blast as being a significant hazard. Since that time OSHA determined that workers shall be provided with clothing that did not worsen their condition if exposed to this multi-hazard event.

As a result of this identification and directive to protect, experts throughout North America came together to generate a consensus standard which would determine levels of protection. These levels of protection have been adopted by NFPA 70E® and CSA Z462 and identified as Arc Flash PPE Categories.

It is important to understand that these Arc Flash PPE Categories are not designed to protect from all injury, but to mitigate the impact of an Arc Flash on the individual. The first choice should always be to reduce or eliminate the hazard.

The Arc Flash PPE Categories identified below are derived from NFPA 70E® and CSA Z462 standards subject to periodic change. You should verify current requirements for your location and type of work to ensure compliance with local requirements and regulations.

\*Refer to NFPA 70E® Annex M Layering of Protective Clothing and Total System Arc Rating for complete details on layering.



# Arc Flash Hazard PPE Category 1 Arc-Rated Clothing

- Minimum Arc-Rating of 4 cal/cm
- Arc-Rated long sleeve shirt and pants or Arc-Rated coverall
- Arc-Rated face shield or arc flash suit hood
- Arc-Rated jacket, parka, rainwear, or hard hat liner as needed

#### **Protective Equipment**

- Hard hat
- Safety glasses or goggles
- Ear canal insert hearing protection
- Heavy duty leather gloves
- Leather footwear as needed



# Arc Flash Hazard PPE Category 2 Arc-Rated Clothing

- Minimum Arc-Rating of 8 cal/cm2
- Arc-Rated long sleeve shirt and pants or Arc-Rated coverall
- Arc-Rated face shield and Arc-Rated balaclava or Arc-Rated flash suit hood
- Arc-Rated jacket, parka, rainwear, or hard hat liner as needed

#### **Protective Equipment**

- Hard hat
- Safety glasses or goggles
- Ear canal insert hearing protection
- Heavy duty leather gloves
- Leather footwear



# Arc Flash Hazard PPE Category 3 Arc-Rated Clothing

- Minimum Arc-Rating of 25 cal/cm² System may be comprised of Arc-Rated long sleeve shirt, pants, coverall, arc flash suit jacket and arc flash suit pants
- Arc-Rated arc flash suit hood
- Arc-Rated gloves
- Arc-Rated jacket, parka, rainwear, or hard hat liner as needed

#### Protective Equipment

- Hard hat
- Safety glasses or goggles
- Ear canal insert hearing protection
- Leather footwear



# Arc Flash Hazard PPE Category 4 Arc-Rated Clothing

- Minimum Arc-Rating of 40 cal/cm² System may be comprised of Arc-Rated long sleeve shirt, pants, coverall, arc flash suit jacket and arc flash suit pants
- Arc-Rated arc flash suit hood
- Arc-Rated gloves
- Arc-Rated jacket, parka, rainwear, or hard hat liner as needed

#### **Protective Equipment**

- Hard hat
- Safety glasses or goggles
- Ear canal insert hearing protection
- Leather footwear

# **PPE Overview**

#### Cementex Arc Flash Task Wear Overview

#### Contractor Series \$

The Cementex Contractor Series is designed for those looking for a lower cost option without sacrificing quality or safety. By minimizing costly features and still using premium USA labor and materials, Cementex has created the perfect blend for safe Arc Flash Protection at an economical price

#### Feature Series \$\$

The Cementex Feature Series is designed for those looking for the next level of comfort, safety, durability and protection. With the ultimate focus on safety and usability, we've included all the features you want and and none you don't. Made with USA labor and materials insure quality and peace of mind.

# UltraLite Series \$\$\$

The Cementex UltraLite Series takes innovative design and the latest and greatest technologies to make the lighest, most comfortable Arc Flash PPE Task Wear available. Utilizing many of the benefits of the "Feature Series", made with USA materials and labor, creates the pinnacle in Arc Flash PPE available today.







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# CONTRACTOR SERIES

The perfect blend of premium quality safety equipment in an affordable package. This series provides qualified electricians the safety they deserve and the value they require in complying with OSHA, and NFPA 70E guidelines. By minimizing costly features while still using premium Made with USA labor and materials, Cementex has created the perfect blend for the safest Arc Flash Protection at an economical price.

A low cost series that is loaded with features:

- Two-way covered FR Velcro® open front for easy entrance and removal
- FR Velcro® Wrist and Ankle straps for easy donning, removal, and adjustment while wearing boots
- FR Elastic Waste for comfort fit
- 32" Standard inseam
- Meets current ASTM F1506 standards
- Meets current ASTM F1959/F1959M-99



# Contractor Series

# Made In the U.S.A.

**User Body** 

Measures:

#### **Contractor Series Size Chart**

	s	М	L	XL	2X	зх	4X	5X	
Chest (In.)	35	39	41	45	49	53	57	61	
Waist (In.)	30	33	36	40	44	48	52	56	
**Standard Ins	eam 32"	***C	ustom	Sizing	Availa	ble			

- Two slash pockets with pass-through slashes for access to pants pockets

40 cal/cm<sup>2</sup> Task Wear

#### HRC4-AFH-C

- Energy Absorbing Polycarbonate Lens
- 51% Visible Light Transmission (VLT)
- Scratch Resistant Coating
- Anti-Fog Faceshield

PN	DESC
HRC4-CT-(SIZE)	Coat (Khaki)
HRC4-OA-(SIZE)	Pant/Bib (Khaki)
HRC4-CVL-(SIZE)	
	Arc Flash Hood (Khaki)
HRC4-K-(SIZE)	Coat / Pant Kit (Khaki) in a Standard
HRC4-CK-(SIZE)	Coverall Kit (Khaki) in a Standard Du
BPK-HRC4K-(SIZE)	Coat / Pant Kit (Khaki) In a Deluxe B
	Coverall Kit (Khaki) in a Deluxe Back
AFSC-HRC4K-(SIZE)	Coat / Pant Kit (Khaki) in an Arc Flas
	) Coverall Kit (Khaki) in an Arc Flash S

Kits include clothing and storage option noted plus:

- Arc Flash Hood
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional)
  \*Backpack Kits with Gloves exclude Gloves Kit
  Canvas Storage Bag





HRC4-OA

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## FEATURE SERIES

The Cementex Feature Series is designed for those looking for the next level of comfort, safety, durability and protection. With the ultimate focus on safety and usability, we've included all the features you want and and none you don't. Made with USA labor and materials insure quality and peace of mind.

- Indura® Ultra Soft® FR Treated Cotton
- FR Velcro® front closures (where applicable) for a secure closure, easy access, and rapid removal in the event of arc exposure
- FR Velcro® calf/ankle closure for easy access and fit adjustment donning, removal, and adjustment while wearing boots
- Coverall includes elastic back for ease of movement
- Nomex® knit wrist cuffs on all coats and coveralls
- Bib/Pants have easily adjustable "quick disconnect" shoulder staps.
- Anti-Fog Faceshields
- Available in sizes S-5X with a standard inseam of 32"
- Meets current ASTM F1506 standards



12 cal/cm2 Task Wear



PN\_\_\_\_\_\_DESC\_\_
CCT12-(SIZE)............ Coat (Navy)
CLC12-(SIZE)........... Lab Coat (Navy)
CLCT12-(SIZE).......... Long Coat (Navy)
CPK12-(SIZE).......... Parka with Hood (Navy)
CPT12-(SIZE).......... Pant/Bib (Navy)
CCVL12-(SIZE)........ Coverall (Navy)
CLEG12-(SIZE)....... Leggings (Navy)
AFH-12C.......... 12 cal/cm² Indura® Ultra Soft® FR Treated
Cotton without Hard Hat

AFH-12HC......12 cal/cm² Indura® Ultra Soft® FR Treated Cotton with Hard Hat

CL2K-(SIZE)..... Coat / Pant Duffel Bag Kit (Navy)

CFRLC12-(SIZE).....Lab Coat Duffel Bag Kit (Navy)
CFRLGC12-(SIZE)....Long Coat / Leggings Duffel Bag Kit (Navy)

CFRPK12-(SIZE)......Parka Duffel Bag Kit (Navy) CFRCA12-(SIZE)..... Coverall Duffel Bag Kit (Navy)

BPK-CL2K-(SIZE).... Coat / Pant Backpack Kit (Navy) with Tools BPK-CFRLC12-(SIZE).... Lab Coat Backpack Kit (Navy) with Tools BPK-CFRCA12-(SIZE).... Coverall Backpack Kit (Navy) with Tools

AFSC-CL2K-(SIZE)...... Coat / Pant Kit in an Arc Flash Storage Canister (Navy) AFSC-CFRLC12-(SIZE)...Lab Coat Kit in an Arc Flash Storage Canister (Navy) AFSC-CFRCA12-(SIZE).. Coverall Kit in an Arc Flash Storage Canister (Navy)

- 12 cal/cm2 Helmet and Face shield
- 12 cal/cm² Balaclava Hood
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional)
   \*Backpack Kits with Gloves exclude Gloves Kit Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricians Tool Roll with kits Including tools (may be added to Duffle and subtracted from Backpack Kits Canister Kits not available with tools)

# Made In the U.S.A.

#### **Feature Series Size Chart**

	S	M	L	XL	2X	<b>3X</b>	4X	5X
Chest (In.)	35	39	41	45	49	53	57	61
Waist (In.) **Standard Ins	30	33	36	40	44	48	52	56
**Standard Ins	eam 32"	***	Custom	Sizing	Availa	ble		

21 cal/cm <sup>2</sup>	Task	Wear
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PN	DESC
CS21CT-(SIZE)	Coat (Navy)
CS21PT-(SIZE)	Pant/Bib (Navy)
CS210P-(SIZE)	OverPant (Navy)
CS21CVL-(SIZE)	Coverall (Navy)
	Arc Flash Hood (Navy)

CS2IK-(SIZE).... Coat / Pant Kit in Standard Duffel (Navy)
CS2ICK-(SIZE)... Coverall Kit in Standard Duffel (Navy)

**User Body** 

Measures:

BPK-CS21K-(SIZE)....Coat / Pant Backpack Kit (Navy) BPK-CS21CK-(SIZE).. Coverall Backpack Kit (Navy)

BPK-CS2IK-(SIZE).... Coat / Pant Kit in an Arc Flash Storage Canister (Navy) BPK-CS2ICK-(SIZE).. Coverall Kit in an Arc Flash Storage Canister (Navy)

Kits include clothing and storage option noted plus:

- Arc Flash Suit Hood
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional)
  \*Backpack Kits with Gloves exclude Gloves Kit
  Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricians Tool Roll (optional)
  \*\*Canister Kits not available with tools

#### 40 cal/cm² Task Wear

- Pant/Bib: two slash pockets for easy pant entry
- Coverall: breast pockets with hidden closures, and two large rear pockets

PN	DESC
CCT40-(SIZE)	Coat 32" Length (Navy)
	Long Coat 49" Length (Navy)
CPT40-(SIZE)	Pant/Bib (Navy)
CCVL40-(SIZE)	Coverall (Navy)
CLEG40-(SIZE)	Legging (Navy)
AFH40-FR	Arc Flash Hood with Ratcheting head gear (Nav
	Arc Flash Hood with Vent Fan (Navy)
AFH40FR-C-RL	Replacement Lens
CL4K-(SIZE)	Coat / Pant Kit (Navy)
	Long Coat and Legging Kit (Navy)
	Coverall Kit (Navy)
BPK-CL4K-(SIZE).	Coat / Pant Backpack Kit (Navy)
	)Coverall Backpack Kit (Navy)

AFSC-CL4CK-(SIZE). Coverall Kit in an Arc Flash Storage Canister (Navy)

Kits include clothing and storage option noted plus:

AFSC-CL4K-(SIZE).... Coat / Pant Kit in an Arc Flash Storage Canister (Navy)

- Arc Flash Suit Hood
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional)
   \*Backpack Kits with Gloves exclude Gloves Kit Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricians
  Tool Roll (optional)
  "Canister Kits not available with tools



CCT40

# ULTRALITE SERIES

The Cementex UltraLite Series takes innovative design and the latest and greatest technologies to make the lightest, most comfortable Arc Flash PPE Task Wear available. The gray color allows for easy recognition of contaminated areas and has significantly cooler feel in the outdoor sun (also available in navy). With many of the usefull benefits of the "Feature Series"; Cementex UltraLite Task Wear is proudly Made with USA labor and materials to insure quality, and peace of mind.

An industry leading, light weight series loaded with features:

- Meets current ASTM F1506 standards
- Meets current ASTM F1959/F1959M-99

#### 11 and 12 cal/cm<sup>2</sup> Task Wear

Innovation and the lightest most comfortable Arc Flash PPE Category 2 Task Wear available. Designs created after years of first-hand market research.

Balaclava Hooded Long Sleeve T-Shirt

- Long Sleeve T-Shirt portion of the garment is an airy, comfortable blend that is oversized to fit comfortably over the top of daily wear.
- Attached balaclava hood is designed to be comfortable when worn "up" for Category 2, or "down" for Category 1.
- By combining these task wear garments into one unit you can assure your balaclava is always WITH your PPE Kit.
- Indura Ultra-Soft® Knit Material
- Nomex® knit wrist cuffs

- Simplicity with attention to detail
- Indura Ultra-Soft® material
- FR hook and loop ankle adjustment
- High elastic waist for comfort and ample overlap with shirt and/or coat
- 2 "Slash Pockets" for access to daily wear

PN	DESC
CUL11TBEL-(SIZE)	Long Sleeve Balaclava Hooded T-Shirt (Gray)
CUL12PT-(SIZE)	Simple Hi-Waist Pant(Gray)

CUL11-K-(SIZE)......Shirt and Pant Kit (Gray) in an Arc Faceshield Storage Bag

BPK-CUL11-K-(SIZE)...... Shirt and Pant Kit (Gray) In a Deluxe Backpack with Tool Kit

AFSC-CUL11-K-(SIZE).....Shirt and Pant Kit (Gray) in an Arc Flash Storage Canister

- 12 cal/cm2 Helmet and Face shield
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional) \*Backpack Kits with Gloves exclude Gloves Kit Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricans Tool Roll Included with Backpack Kits











**User Body** Measures:

#### **UltraLite Series Size Chart**

(ln.)	8	М	L	XL	2X	3X	4X	5X
Chest	36-38	40-42	44-46	48-50	52-54	56-58	60-62	64-66
Waist	32-34	36-38	40-42	44-46	48-50	52-54	56-58	60-62
Sleeve	34.5	35.5	36.5	37.5	39	40.5	42	43.5
**Standa	rd Insea	am 32" S	hort 30"	Tall 34"				

\*Custom Sizing Available

#### 40 cal/cm<sup>2</sup> Task Wear

This breakthrough in technology joins two different materials to produce highly protective garments that are 37% lighter in weight than typical 40 cal/cm2 garments, while maintaining premium comfort, durability, and wearability.

#### Coat/Coverall:

- Hook and Loop front closure
- Nomex® knit wrist cuffs

- Quick connect shoulder straps for easy access and removal (Bib)
- FR hook and loop hip closure and ankle adjustment

- Ventilation Fan System (optional)
- Hood Light (optional) (may be upgraded to include

vent fan syster	n and hood light)
PN	DESC
CUL40CT-(SIZE)	
CUL40LC-(SIZE)	Long Coat, 50" (Gray)
CUL40PT-(SIZE)	Pant/Bib (Gray)
CUL400P-(SIZE)	Over Pant (Gray)
CUL40CVL-(SIZE)	
CUL40LEG-(SIZE)	Legging (Gray)
CUL40-AFH	Arc Rated Flash Hood w/Hemet (Gray)
CUL40-UH	Arc Rated Flash Hood - shell only (Gray)
LIGHT-1	Flash Hood Headlight
	UltraLite Vent Fan System
CUL40-AFHV	Arc Rated Flash Hood
	with Vent Fan (Gray)
CUL40K-(SIZE)	Coat / Pant Kit in a Standard Duffel Bag
	Coat and Over Pant Kit in a Standard Duffel Bag
	Long Coat and Legging Kit in a Standard Duffel Bag
	Coverall Kit in a Standard Duffel Bag
CUL40K-(SIZE)	Coat / Pant Kit in a Deluxe Backback

CUL4OCOPK-(SIZE)... Coat and Over Pant Kit in a Deluxe Backpack
CUL4OLCK-(SIZE)..... Long Coat and Legging Kit in a Deluxe Backpack
CUL4OCK-(SIZE)...... Coverall Kit in a Deluxe Backpack

CUL40K-(SIZE)...... Coat / Pant Kit in an Arc Flash Storage Canister CUL4OCOPK-(SIZE)... Coat and Over Pant Kit in an Arc Flash Storage Canister CUL4OLCK-(SIZE)..... Long Coat and Legging Kit in an Arc Flash Storage Canister CUL4OCK-(SIZE)...... Coverall Kit in an Arc Flash Storage Canister

- Arc Flash Suit Hood (Upgrade to vent available)
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional) \*Backpack Kits with Gloves exclude Gloves Kit Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricans Tool Roll with kits including tools (Canister Kits not available with tools)



#### BATTERY ACID RESISTANT

Cementex Battery Acid Resistant Fabric offers a new feel to the electrical safety market. The uniquely woven blend of fabrics offer great breathability and optimized moisture management to keep the wearer cooler, drier, and more comfortable overall. The fabric strength keeps the fabric piling to a minimum. The battery acid resistance is described as "breakdown" of the fabric versus standard flame resistant treated fabrics. The fabric has been tested for arc rated compliance.

A premium series that is loaded with features:

- FR Velcro® front closures (where applicable) for a secure closure, easy access, and rapid removal in the event of arc exposure
- FR Velcro® calf/ankle closure for easy access and fit adjustment donning, removal, and adjustment while wearing boots
- Coverall includes elastic back for ease of movement
- Nomex® knit wrist cuffs on all coats and coveralls
- Bib/Pants have easily adjustable "quick disconnect" shoulder staps.
- Anti-Fog Faceshields
- Available in sizes S-5X with a standard inseam of 32"
- Meets current ASTM F1506 standards
- Meets current ASTM F1959/F1959M-99



# Made In the U.S.A.

# **Battery Acid Resistant Size Chart**

(In.)	S	M	L	XL	2X	3X	4X	5X
Chest	36-38	40-42	44-46	48-50	52-54	56-58	60-62	64-66
Waist	32-34	36-38	40-42	44-46	48-50	52-54	56-58	60-62
Sleeve	34.5	35.5	36.5	37.5	39	40.5	42	43.5

\*\*\*Custom Sizing Available

26/40 cal/cm² Task Wear

**User Body** 

Measures:

These Task Wear garments can be worn independently to achieve Arc Flash PPE Category 3.

To achieve Arc Flash PPE Category 4 these garments MUST be used in conjunction with Cementex's 8 cal/cm2 battery acid resistant Task Wear. The combination of layering these two garments together has tested to an ATPV of 48.3 cal/cm<sup>2</sup>; well beyond the 40 cal/cm<sup>2</sup> minimum needed to achieve Arc Flash PPE Category 4. As per NFPA 70E; layering to achieve higher protection may only

be done when garments have been tested together as they would be worn. DO NOT layer Arc Flash PPE garments for increased protection if they have not been tested together.

Test data available upon request.

PN DESC CBARCT2640-(SIZE).... Coat (Navy) CBARPT2640-(SIZE).....Pant/Bib (Navy) CBARLC2640-(SIZE).....Lab Coat (Navy) CBARC2640-(SIZE)...... Coverall (Navy) CBAR-AFH40......40 cal/cm2 Arc Flash Hood (Navy) CBAR-AFH40HVS...... 40 cal/cm2 Arc Flash Hood CBARS2640K-(SIZE).... with Cooling Fan (Navy)

CBARS2640K-(SIZE).... Coat / Pant Kit in Standard Duffel (Navy) CBARS2640KF-(SIZE).. Coat / Pant & Cool Hood Kit in Standard Duffel (Navy)

CBARS2640K-(SIZE).... Lab Coat Kit in Standard Duffel (Navy)

CBARS2640KF-(SIZE).. Lab Coat & Cool Hood Kit in Standard Duffel (Navy) CBARS2640K-(SIZE).... Coverall Kit in Standard Duffel (Navy)

CBARS2640KF-(SIZE).. Coverall & Cool Hood Kit in Standard Duffel (Navy)

BPK-CBARS2640K-(SIZE).... Coat / Pant Kit in Deluxe Backpack (Navy)

BPK-CBARS2640KF-(SIZE).. Coat / Pant & Cool Hood Kit in Deluxe Backpack (Navy)

BPK-CBARS2640K-(SIZE).... Lab Coat Kit in Deluxe Backpack (Navy)

BPK-CBARS2640KF-(SIZE).. Lab Coat & Cool Hood Kit in Deluxe Backpack (Navy)

BPK-CBARS2640K-(SIZE).... Coverall Kit in Deluxe Backpack (Navy)

BPK-CBARS2640KF-(SIZE).. Coverall & Cool Hood Kit in Deluxe Backpack (Navy)

AFSC-CBARS2640K-(SIZE).... Coat / Pant Kit in an Arc Flash Storage Canister (Navy) AFSC-CBARS2640KF-(SIZE).. Coat / Pant & Cool Hood Kit in an Arc Flash Storage Canister(Navy)

AFSC-CBARS2640K-(SIZE).... Lab Coat Kit in an Arc Flash Storage Canister(Navy,

AFSC-CBARS2640KF-(SIZE)...Lab Coat & Cool Hood Kit in an Arc Flash Storage Canister (Navy) AFSC-CBARS2640K-(SIZE).... Coverall Kit in an Arc Flash Storage Canister (Navy)

AFSC-CBARS2640KF-(SIZE).. Coverall & Cool Hood Kit in an Arc Flash Storage Canister (Navy)

- Arc Flash Suit Hood
- Safety Glasses and Ear Canal Inserts
- Insulating Rubber Glove Kit (optional) \*Backpack Kits with Gloves exclude Glove Kit Canvas Storage Bag
- TR-9ELK: 9 Pc Basic Electricians Tool Roll (optional)





