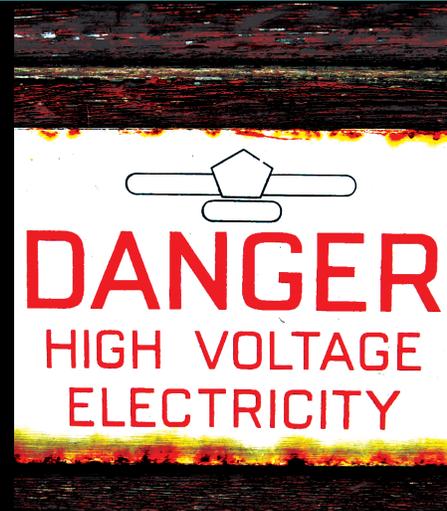
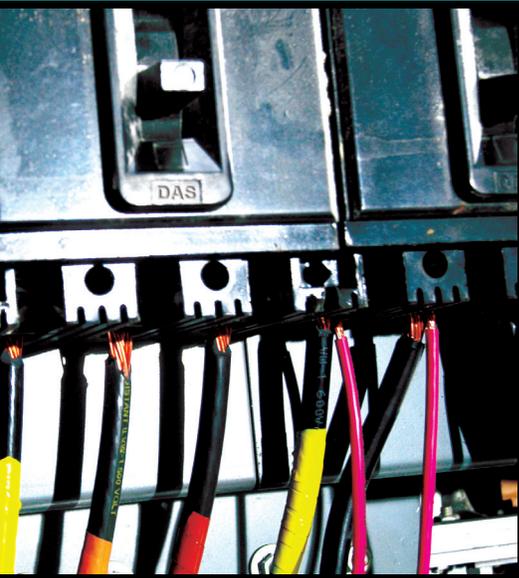


ARC FLASH P R O T E C T I O N

NFPA 70E 2018 • CPA 9th EDITION



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INTRODUCTION

In the 2018 edition of the NFPA 70E, the most recent update to the standard designed to protect workers from arc flash hazards, there is a continuing emphasis on risk assessment. Additionally, the consideration of human factors and errors, when assessing the risk for an arc flash event is introduced. As a result, the standard emphasizes the need to use a series of risk controls, one of which is requiring workers to wear PPE. Employers are required to verify that appropriate PPE is given to employees, and the standard sets forth guidelines for evaluating protective apparel.

The NFPA 70E has outlined a conformity assessment for suppliers and manufacturers of PPE, which requires the implementation of a registered quality management system, and product testing by an accredited laboratory. In response to these new requirements, CPA's quality management system is now ISO 9001: 2015 certified for the design, sale, and manufacture of protective and safety apparel. We also ensure that our products are properly labeled, marked, and tested in a laboratory, per the updated standard.

By implementing these changes, CPA is continuing its commitment to providing high-quality, innovative, and above all, effective protective apparel to keep workers safe.

Arc Flash Hazard and NFPA 70E Standard

Arc flash events are unique and extremely dangerous exposures that workers encounter while doing electrical work. Although the majority of workplace electrical injuries result from electric shock, the burns from the release of intense radiant energy during an arc flash event can cause severe, and even fatal injuries. Temperatures can reach as high as 35,000°F, with fatal burns occurring even at distances over ten feet. Given how dangerous this hazard is, protective measures must be put in place for worker safety.

According to the NFPA 70E, employers are required to perform an arc flash hazard analysis to determine the flash protection boundary distance. Based on the results of the analysis, employees must wear protective clothing for the corresponding PPE category, that has an ATPV of at least the value listed in the "Protective Clothing Characteristics" section of the standard. The NFPA 70E sets forth requirements and guidelines for the selection of arc flash clothing, such as coverage, fit, layering, and very importantly, the fabrics it is made of. Protective clothing made from arc-rated, flame-resistant materials, provide thermal protection, and will not continue to burn after the ignition source is removed. These fabrics protect the user by providing a thermal barrier, and minimize the injuries that result from clothing that continues to burn.

The use and recognition of the NFPA 70E standard is growing more widespread, since the vast majority of major companies in the U.S. have some employees who work on or near energized electrical conductors or circuit parts. Garments that meet the ASTM F1506 and NFPA 70E are also in compliance with OSHA 29 CFR 1910.269 Electrical Power Generation, Transmission and Distribution, with regard to protective clothing not contributing to burn severity. In addition, the Department of Energy has required that federal and contractor employees comply with NFPA 70E, and the 2002 National Electric Code (NEC) references the standard. Finally, OSHA considers the NFPA 70E standard "a recognized industry practice."

PPE LEVELS & CLOTHING

PPE 1

MINIMUM ARC RATING OF 4 CAL / CM²

Arc-Rated Clothing

- 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 (AN)

Protective Equipment

- E-rated hard hat
- Safety glasses or safety goggles (SR)
- Hearing protection (ear canal inserts)
- Heavy duty leather gloves
- Leather footwear (AN)



PPE 2

MINIMUM ARC RATING OF 8 CAL / CM²

Arc-Rated Clothing

- Arc-rated long-sleeve shirt and pants or arc-rated coverall
- Arc-rated flash suit hood or arc-rated face shield and arc-rated balaclava
- Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

- E-rated hard hat
- Safety glasses or safety goggles (SR)
- Hearing protection (ear canal inserts)
- Heavy duty leather gloves
- Leather footwear



AN: As Needed (optional) • AR: As Required • SR: Selection Required

PPE 3

MINIMUM ARC RATING OF 25 CAL / CM²

Arc-Rated Clothing Selected so that the System Arc Rating Meets the Required Minimum Arc Rating

- Arc-rated long-sleeve shirt (AR)
- Arc-rated pants (AR)
- Arc-rated coverall (AR)
- Arc-rated arc flash suit jacket (AR)
- Arc-rated arc flash suit pants (AR)
- Arc-rated arc flash suit hood
- Arc-rated gloves
- Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

- E-rated hard hat
- Safety glasses or safety goggles (SR)
- Hearing protection (ear canal inserts)
- Leather footwear



PPE 4

MINIMUM ARC RATING OF 40 CAL / CM²

Arc-Rated Clothing Selected so that the System Arc Rating Meets the Required Minimum Arc Rating

- Arc-rated long-sleeve shirt (AR)
- Arc-rated pants (AR)
- Arc-rated coverall (AR)
- Arc-rated arc flash suit jacket (AR)
- Arc-rated arc flash suit pants (AR)
- Arc-rated arc flash suit hood
- Arc-rated gloves
- Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

- E-rated hard hat
- Safety glasses or safety goggles (SR)
- Hearing protection (ear canal inserts)
- Leather footwear



ARC FLASH CLOTHING

COAT 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash coats are made from varying weights and layers of UltraSoft® fabric, a fire-resistant blend of 88% cotton and 12% nylon. The coats are 50" in length and feature a barracuda collar with Velcro® closure, front Velcro® closure, and knit wristlets.

Cal Rating	Part Number
8 cal/cm ²	SWC-8-SIZE
12 cal/cm ²	SWC-12-SIZE
20 cal/cm ²	SWC-20-SIZE
32 cal/cm ²	SWC-32-SIZE
43 cal/cm ²	SWC-43-SIZE

COAT 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash coats are made from very advanced protective materials, making our PPE 4 clothing among the lightest weight on the market. The coats are 50" in length and feature a barracuda collar with Velcro® closure, front Velcro® closure, and knit wristlets.

Cal Rating	Part Number
40 cal/cm ²	SWC-40-SIZE
74 cal/cm ²	SWC-74-SIZE

JACKET 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash jackets are made from varying weights and layers of UltraSoft® fabric, a fire-resistant blend of 88% cotton and 12% nylon. The jackets are 35" in length and feature a barracuda collar with Velcro® closure, front Velcro® closure, and knit wristlets.

Cal Rating	Part Number
8 cal/cm ²	SWJ-8-SIZE
12 cal/cm ²	SWJ-12-SIZE
20 cal/cm ²	SWJ-20-SIZE
32 cal/cm ²	SWJ-32-SIZE
43 cal/cm ²	SWJ-43-SIZE

JACKET 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash jackets are made from very advanced protective materials, making our PPE 4 clothing among the lightest weight on the market. The jackets are 35" in length and feature a barracuda collar with Velcro® closure, front Velcro® closure, and knit wristlets.

Cal Rating	Part Number
40 cal/cm ²	SWJ-40-SIZE
74 cal/cm ²	SWJ-74-SIZE

PANTS 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash pants are made from varying weights and layers of UltraSoft® fabric, a fire-resistant blend of 88% cotton and 12% nylon. The pants feature front Velcro® closure, belt loops, and leg slits with continuous Velcro® closures.

Cal Rating	Part Number
8 cal/cm ²	SWP-8-SIZE
12 cal/cm ²	SWP-12-SIZE
20 cal/cm ²	SWP-20-SIZE
32 cal/cm ²	SWP-32-SIZE
43 cal/cm ²	SWP-43-SIZE

PANTS 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash pants are made from very advanced protective materials, making our PPE 4 clothing among the lightest weight on the market. The pants feature an elasticized waist and ankle cuffs.

Cal Rating	Part Number
40 cal/cm ²	SWP-40-SIZE
74 cal/cm ²	SWP-74-SIZE

BIB OVERALL 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash bib overalls are made from varying weights and layers of UltraSoft® fabric, a fire-resistant blend of 88% cotton and 12% nylon. They feature leg slits and a side closure at waist, both with Velcro® closures. The straps on the overalls have a criss-cross back with plastic crosser, and plastic Nexus® clip closure at upper chest.

Cal Rating	Part Number
8 cal/cm ²	SWB-8-SIZE
12 cal/cm ²	SWB-12-SIZE
20 cal/cm ²	SWB-20-SIZE
32 cal/cm ²	SWB-32-SIZE
43 cal/cm ²	SWB-43-SIZE

BIB OVERALL 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash bib overalls are made from aramid and very advanced quilted protective materials, making our PPE 4 clothing among the lightest weight on the market. The bib overalls feature leg slits and side closure at waist, both with Velcro® closures. The straps on the overalls have a criss-cross back with plastic crosser, and plastic Nexus® clip closure at upper chest.

Cal Rating	Part Number
40 cal/cm ²	SWB-40-SIZE
74 cal/cm ²	SWB-74-SIZE

COVERALL 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash coveralls are made with varying weights and layers of UltraSoft® fabric, a fire resistant blend of 88% cotton and 12% nylon. The coverall is loose fitting, and comes with a barracuda collar, leg slits, and knit wristlets. All closures on this coverall are Velcro®, including the front, collar, and leg slit covers.

Cal Rating	Part #
8 cal/cm ²	SW-605-8
12 cal/cm ²	SW-605-12
20 cal/cm ²	SW-605-20
32 cal/cm ²	SW-605-32
43 cal/cm ²	SW-605-43

LEGGINGS 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash leggings are made from varying weights and layers of UltraSoft® fabric. The leggings are 14" long, with full vertical Velcro® closures in back, and secure to feet with split leather strap and side Velcro® closure.

Cal Rating	Part #
8 cal/cm ²	SW-401-8
12 cal/cm ²	SW-401-12
20 cal/cm ²	SW-401-20
32 cal/cm ²	SW-401-32
43 cal/cm ²	SW-401-43

LEGGINGS 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash leggings are made from aramid fabric and high-performance fire-resistant quilted fabric. The leggings are 14" long, with full vertical Velcro® closures in back, and secure to feet with split leather strap and side Velcro® closure.

Cal Rating	Part #
40 cal/cm ²	SW-401-40
74 cal/cm ²	SW-401-74

HOODS 8-43 CAL, PPE2-PPE4



Our 8-43 cal arc flash hoods are made from varying weights and layers of UltraSoft®. It comes with a highly transparent window, with a natural gray tint to allow for greater visibility, and accurate color rendering.

Cal Rating	Part #
8 cal/cm ²	SWH-8
12 cal/cm ²	SWH-12
20 cal/cm ²	SWH-20
32 cal/cm ²	SWH-32
43 cal/cm ²	SWH-43

HOODS 40 & 74 CAL, PPE4



Our 40 and 74 cal arc flash hoods are made from from aramid fabric, and high-performance fire-resistant quilted fabric. It comes with a green tinted window, for more light transmission and greater visibility, while still providing a high level of protection.

Cal Rating	Part #
40 cal/cm ²	SWH-40
74 cal/cm ²	SWH-74

ARC FLASH PROTECTION KITS

8 CAL ARC FLASH KITS



8 CAL JACKET & BIB KIT

- Jacket (SWJ-8)
- Bib Overall (SWB-8)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG8-SIZE

8 CAL JACKET & PANT KIT

- Jacket (SWJ-8)
- Pant (SWP-8)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG8-JP-SIZE

8 CAL COAT & LEGGING KIT

- Coat (SWC-8)
- Leggings (SW-401-8)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG8-CL-SIZE

8 CAL COVERALL KIT

- Coverall (SW-605-8)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG8-CV-SIZE

12 CAL ARC FLASH KITS



12 CAL JACKET & BIB KIT

- Jacket (SWJ-12)
- Bib Overall (SWB-12)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG12-SIZE

12 CAL JACKET & PANT KIT

- Jacket (SWJ-12)
- Pant (SWP-12)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG12-JP-SIZE

12 CAL COAT & LEGGING KIT

- Coat (SWC-12)
- Leggings (SW-401-12)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG12-CL-SIZE

12 CAL COVERALL KIT

- Coverall (SW-605-12)
- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WV-ARC-12AD)
- Cap Bracket (HB-AD-SLT)
- Knit Nomex Hood (KN-51)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG12-CV-SIZE

20 CAL ARC FLASH KITS



20 CAL JACKET & BIB KIT

- Jacket (SWJ-20)
- Bib Overall (SWB-20)
- Hood with Hard Cap (SWH-20H)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG20-SIZE

20 CAL JACKET & PANT KIT

- Jacket (SWJ-20)
- Over Pant (SWP-20)
- Hood with Hard Cap (SWH-20H)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG20-JP-SIZE

20 CAL COAT & LEGGINGS KIT

- Coat (SWC-20)
- Leggings (SW-401-20)
- Hood with Hard Cap (SWH-20H)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG20-CL-SIZE

20 CAL COVERALL KIT

- Coverall (SW-605-20)
- Hood with Hard Cap (SWH-20H)
- Rubber Gloves (LRIG-0-11)
- Leather Protector Gloves (PG-0-ADJS)
- 12" Glove Bag (GB-12)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG20-CV

32 CAL ARC FLASH KITS



32 CAL JACKET & BIB KIT

- Jacket (SWJ-32)
- Bib Overall (SWB-32)
- Hood with Hard Cap (SWH-32H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG32-SIZE

32 CAL JACKET & PANT KIT

- Jacket (SWJ-32)
- Over Pant (SWP-32)
- Hood with Hard Cap (SWH-32H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG32-JP-SIZE

32 CAL COAT & LEGGINGS KIT

- Coat (SWC-32)
- Leggings (SW-401-32)
- Hood with Hard Cap (SWH-20H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG32-CL-SIZE

32 CAL COVERALL KIT

- Coverall (SW-605-32)
- Hood with Hard Cap (SWH-32H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG32-CV-SIZE

43 CAL ARC FLASH KITS



43 CAL JACKET & BIB KIT

- Jacket (SWJ-43)
- Bib Overall (SWB-43)
- Hood with Hard Cap (SWH-43H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG43

43 CAL JACKET & PANT KIT

- Jacket (SWJ-43)
- Over Pant (SWP-43)
- Hood with Hard Cap (SWH-43H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG43-JP

43 CAL COAT & LEGGINGS KIT

- Coat (SWC-43)
- Leggings (SW-401-43)
- Hood with Hard Cap (SWH-43H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG43-CL

43 CAL COVERALL KIT

- Coverall (SW-605-43)
- Hood with Hard Cap (SWH-43H)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG43-CV

40 & 74 CAL ARC FLASH KITS



40 CAL JACKET & BIB KIT

- Jacket (SWJ-40)
- Bib Overall (SWB-40)
- Hood (SWH-40)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG40-SIZE

40 CAL JACKET & PANT KIT

- Jacket (SWJ-MS40)
- Over Pant (SWP-MS40)
- Hood (SWH-40)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG40-JP-SIZE

40 CAL COAT & LEGGINGS KIT

- Coat (SWC-40)
- Leggings (SW-401-40)
- Hood (SWH-40)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG40-CL-SIZE

74 CAL JACKET & BIB KIT

- Jacket (SWJ-74)
- Bib Overall (SWB-74)
- Hood (SWH-74)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG74-SIZE

74 CAL JACKET & PANT KIT

- Jacket (SWJ-74)
- Over Pant (SWP-MS74)
- Hood (SWH-74)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG74-JP-SIZE

74 CAL COAT & LEGGINGS KIT

- Coat (SWC-74)
- Leggings (SW-401-74)
- Hood (SWH-74)
- Hard Cap (HC-Color-SLT)
- Rubber Gloves (LRIG-2-14)
- Leather Protector Gloves (LLPG-12)
- 15" Glove Bag (GB-15)
- Gear Bag (909-ARC)
- Safety Glasses (SW-SG)
- Ear Plugs (SW-EAR)

Part #AG74-CL-SIZE

CARE & MAINTENANCE OF ARC FLASH KITS

Garment Care

Garments in the kits should be inspected before each use. If they are contaminated or damaged to the extent that their protective qualities are diminished, discontinue use. Contaminants to watch for include, but are not restricted to, grease, oil, flammable liquids or combustible materials. Please store the garments properly when not in use to protect them from contaminants.

Repairs

When arc-rated clothing is repaired, the same arc-rated materials used to manufacture the arc-rated clothing should be used to provide repairs.

Laundering

When laundering, clean garment thoroughly. Dry clean or machine wash to 140°, and up to 165° on cotton blends. Tumble dry medium. No chlorine bleach or hydrogen peroxide either separately or in the detergents. No softeners or starch. Failure to launder properly could affect the flame resistance of the garments.

Insulating Glove Care

Voltage rated gloves must be tested as defined in ASTM F496 Specification for In-Service Care of Insulating Gloves and Sleeves.

Voltage rated gloves should always be kept in the storage container when not in use. Gloves, assembled with their leather protectors, should be kept in a storage container with the fingers pointing toward the opening of the container. The container should be kept in a clean and dry location when not in use.

Leather protector gloves must be inspected before each use. Surface areas should be inspected for cuts and abraded surfaces and should be replaced if there is any damage. Leather protectors should be inspected for excess dirt and lubricant. Gloves contaminated with petroleum-based lubricants should be discarded.

All surfaces of the rubber-insulating gloves should be inspected for damage that could reduce their insulating capabilities.

Examples of such damage include cuts, abrasions, tears, pitting, age cracks, chemical bloom, depressions, embedded foreign matter, mold marks, punctures, repair marks, soft spots, color splash, runs or ozone cracks. Damaged gloves should be discarded immediately.

Care and Maintenance of Arc-Rated Face Shields

Face shields should be inspected for physical integrity and should be free of cracks or excessive wear. Face shields should be kept clean for best vision. Clean with water and mild soap and dry with soft cloth. Make sure no contaminating residue is left on the shield. Store face shield in a shield stuff bag to protect it from dust and scratches.

GARMENT SIZING INFORMATION

The proper fit of PPE apparel is essential to worker safety, rather than about aesthetics. Here at CPA we understand that and want to make sure that you have the best fitting garment for your unique physique.

If you are unable to fit in a traditional size, you may need a tall size, a short size, or a big size. We can help you determine the right size for you. All we need is your height and the basic body measurements shown in the section below entitled "How to Measure for the Correct Size".

HOW TO GET THE CORRECT SIZE

SLEEVE	Measure arm from base of neck to wrist with arm extended outward
CHEST	Measure around the fullest part of chest, keeping tape up under arms
WAIST	Measure around waist, keep tape snug, not too tight
INSEAM	Measure from mid-crotch to floor Short: Subtract 1" from the torso and 1" from the sleeve Tall: Add 2" to the torso and 1.5" to the sleeve

COVERALLS & BIB OVERALLS					INSEAM	
Size	Inseam	Chest	Sleeve	Waist	Short	30
S	32	36/38	32¼	30-32	Regular	32
M	32	40/42	33	34-36	Tall	34
L	32	44/46	33¾	38-40		
XL	32	48/50	34½	42-44		
2XL	32	52/54	35¼	46-48		
3XL	32	56/58	35¾	50-52		
4XL	32	60/62	36¼	54-56		
5XL	32	64/66	36¾	58-60		

JACKETS, COATS & SHIRTS			PANTS		
Size	Chest	Sleeve	Size	Inseam	Waist
S	36/38	32¼	S	32	30-32
M	40/42	33	M	32	34-36
L	44/46	33¾	L	32	38-40
XL	48/50	34½	XL	32	42-44
2XL	52/54	35¼	2XL	32	46-48
3XL	56/58	35¾	3XL	32	50-52
4XL	60/62	36¼	4XL	32	54-56
5XL	64/66	36¾	5XL	32	58-60

DAILY WEAR

INDURA® COVERALL



ARC RATED
10.8 ATPV

Made from 9 oz. Indura®, 100% flame-resistant cotton. Multi-purpose protection from electric arc, flash fire, light molten ferrous metal splash, and welding exposure. Guaranteed flame-resistance for the life of garment. Meets NFPA 70E and NFPA 2112.

GARMENT FEATURES

- Concealed brass zipper, snap at top of zipper, and at neck
- Two outside chest pockets (one with flap closure and pencil slot), two front waist pockets, two rear patch pockets, and right hip tool pocket
- Elasticized waistband and action back
- Adjustable snap at wrist cuff
- Reinforced bar tack at high stress areas
- Available in navy and orange

Cal Rating	Color	Part #
10.8 cal/cm ²	Navy	605-IND-N-SIZE
10.8 cal/cm ²	Orange	605-IND-O-SIZE

ULTRASOFT® COVERALL



7 OZ. KHAKI ARC RATED
8.7 ATPV

9 OZ. NAVY ARC RATED
12.4 ATPV

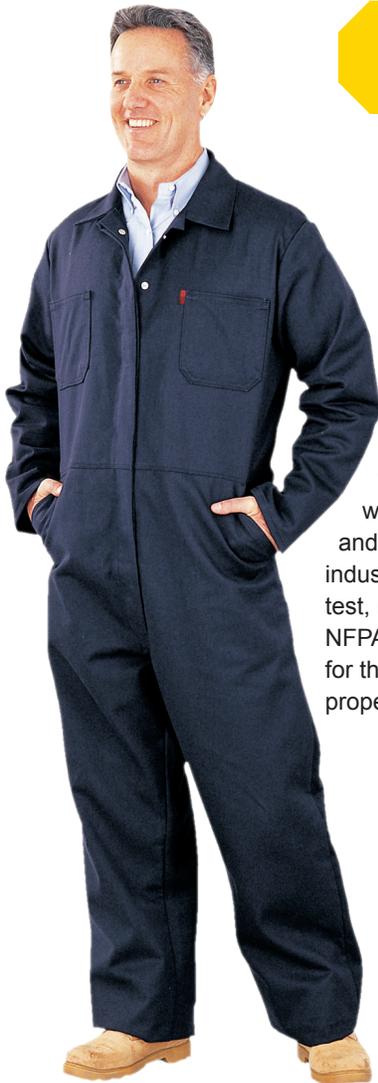
UltraSoft® is a flame-resistant blend consisting of 12% nylon and 88% cotton. The addition of nylon enhances the protective performance ATPV, durability of the garment, and provides a softer, smoother feel against skin. Guaranteed flame-resistant for the life of garment. Meets NFPA 70E and NFPA 2112.

GARMENT FEATURES

- Two outside front chest pockets, two front waist pockets, two rear patch pockets
- Concealed brass zipper, snap at top of zipper, and at neck
- Snap-free wrist
- 7 oz. Khaki: 8.7 ATPV • PPE2
- 9 oz. Navy: 12.4 ATPV • PPE2

Cal Rating	Color	Part #
8.7 cal/cm ²	Khaki	605-USK-SIZE
12.4 cal/cm ²	Navy	605-USN-SIZE

FR COTTON COVERALL



ARC RATED
9.2 ATPV

Durable 9 oz. 100% cotton flame-resistant fabric. Made for FR work wear geared towards the oil and gas, electric, and welding industries. Passes ASTM F1506 test, meets NFPA 70E, and NFPA 2112. Guaranteed FR for the life of the garment with proper care.

GARMENT FEATURES

- Protective stand-up collar with hook and loop closure, lays flat when worn open
- Two-way heavy-duty brass zipper on meta-aramid tape
- Storm guard over zipper with snap closures
- Side elasticized waist and action back for mobility
- Gusset crotch for added mobility and strength
- Split cuff with two (2) position snap closures
- Two (2) rear pockets, two (2) front waist pockets, two (2) outside chest pockets (left pocket with flap closure and pencil slot), left sleeve pocket, and right hip tool pocket
- Available in navy and khaki

Cal Rating	Color	Part #
9.2 cal/cm ²	Khaki	605-FRC-K-SIZE
9.2 cal/cm ²	Navy	605-FRC-N-SIZE

TRUECOMFORT® LONG SLEEVE T-SHIRT



- 5.5 oz. 100% cotton
- 8.9 ATPV
- NFPA 2112 and NFPA 70E
- Guaranteed flame resistant for the life of the garment

Part #

610-FRC-LS-COLOR-SIZE

HENLEY LONG SLEEVE T-SHIRT



- 8.9 ATPV
- Left chest pocket
- Rib knit collar and cuffs
- Three-button front closure

Part #

610-FRC-HEN-COLOR-SIZE

DAILY WEAR

ULTRASOFT® WORK SHIRT



- 7 oz. UltraSoft®
- Blend of 88% cotton and 12% nylon
- Flame-resistant and arc protective
- NFPA 70E and NFPA 2112
- 8.7 ATPV

Color	Part #
Khaki	625-USK-SIZE
Navy	625-USN-SIZE

INDURA® RELAXED FIT JEANS



- 14 oz. 100% cotton FR denim
- Relaxed fit, five-pocket style
- 18.3 ATPV
- NFPA 70E and NFPA 2112

Part #
606-IND-DNM-[WAIST X INSEAM]

ULTRASOFT® NAVY WORK PANT



- 9 oz. Navy UltraSoft®
- 12.4 ATPV
- NFPA 70E and NFPA 2112

Part #
606-USN-[WAIST X INSEAM]

ULTRASOFT® FLEECE ZIP HOODIE



- UltraSoft® fleece
- Sewn with Nomex® thread
- Navy, 21.8 EBT

Part #
615-USFN-SIZE

ULTRASOFT® FLEECE HOODIE



- UltraSoft® fleece
- Sewn with Nomex® thread
- Navy, 21.8 EBT

Part #
617-USFN-SIZE

ULTRASOFT® SWEATSHIRT



- UltraSoft® fleece
- Crew neck style
- Sewn with Nomex® thread
- Navy, 21.8 EBT

Part #
620-USFN-SIZE

BASE LAYER GARMENTS

Flame-resistant (FR) undergarments play an essential role in protecting wearers against serious burn injuries and more common nuisance burns. In dangerous situations, having this layer of defense close to the skin may buy the wearer critical time to escape without severe or life-threatening burns and injuries.

CARBONX® ULTIMATE



The CarbonX® Ultimate™ baselayer provides the highest level of protection for professionals working in extreme conditions where safety matters most. It is made from a double jersey interlock knit, comprised of a proprietary blend of high-performance fibers. At only 8 oz. / sq. yd. it is very light, comfortable, and wearable.

12.3 ATPV

Product	Part #
Long Sleeve Shirt	CX-54-SIZE
Long Johns	CX-55-SIZE
22" Socks	CX-56-22

CARBONX® ACTIVE



The CarbonX® Active baselayer is the ideal solution for wearers who want to keep comfortable, even in warmer conditions. It is made from a light summer weight, 6 oz. / sq. yd. double jersey interlock knit comprised of a proprietary blend of high-performance fibers, including a hydrophilic fiber designed to absorb and wick away moisture.

10 ATPV

Product	Part #
Long Sleeve Shirt	CXA-54-SIZE
Long Johns	CXA-55-SIZE

ACCESSORIES

STORAGE BAG



Fleece lined storage bag with drawstring. Sized to accommodate face shield with hard cap or full hoods.

Part #
SW-SB

HARD CAPS & GLASSES

HC-Color-SLT	Plastic Hard Cap
P2RW-Color	Fiberglass Hard Cap
SW-SG	Safety Glasses

Increase your comfort and productivity with CPA's Refresh™ air flow system.



CPA's waist belt unit minimizes stagnant air in your hood by delivering a steady stream of ambient air flow.

Our Refresh™ system can be used with any CPA Arc hood as well as with any of our PPE2 face shields.

Refresh™ fans are not NIOSH approved and do not provide breathable air filtration. They are a means to provide ambient air flow only.

Refresh™ full kit includes: Fan belt unit with FR cover, hose with FR cover, hard cap with diffuser, rechargeable battery, AC power charger and two filters.

Refresh™

Full Kit
Rechargeable Battery
Bag of 6 Filters

RF-KIT
RF-BATT
RF-FLTR

FACE SHIELDS & HOODS

12 CAL FACE SHIELD UNIT



WV-ARC-XL | Face Shield
HB-2-SLT | Slotted Cap Bracket
HC-Color-SLT | Hard Cap

Kit Part #SW-WVK-COLOR

12 CAL CHIN FACE SHIELD UNIT



WV-ARC-12AD | Face Shield with Chin Cup
HB-AD-SLT | Slotted Cap Bracket
HC-Color-SLT | Hard Cap

Kit Part #SW-WVCK-COLOR

CARBONX® ULTIMATE HOOD



The CarbonX® Ultimate flared style hood provides maximum coverage. Our hood features flat stitching, and seamless chin area for better fit and comfort. 2-Ply: 32 ATPV. 3-ply: 53 ATPV.

Part #KCF-51 (2-Ply) • Part #KC3-51 (3-Ply)

FACE SHIELD WINDOWS

Highly transparent, neutral grey tinted face shield provides excellent visibility, color rendering, and field of view. Window measures 10" x 20" x .060", and four layers secured together (Velcro, window, gasket, inner window) form its Velcro riveted design. It has a self-supporting frame, providing more structural stability, and the premium coating adds additional arc flash protective properties and extends service life. Meets NFPA 70E, ASTM F2178; ANSI Z87+S. Single layer shield is rated at 25 cal / cm², double layer at 40 cal / cm².



Cal Rating	Part #
25 cal / cm ²	WV-ARC-HT25HT
40 cal / cm ²	WV-ARC-HT40HT

KNIT NOMEX® BLEND HOOD



Made with two-ply 7 oz Nomex® / FR Lenzing blend, our long drape style Knit Nomex® Blend hoods meet the requirements of both the ASTM F1506 and NFPA 70E. 10.1 ATPV PPE 2.

Part #KN-51

3PHASE LIFT-FRONT FACE SHIELD WINDOWS



3Phase Lift-Front Window Shown Closed



3Phase Lift-Front Window Shown Open

Our lift-front face shields provide great ergonomics and visibility. The lift-front design makes this face shield user-friendly and comfortable for workers to use. Designed to be worn with hoods, these face shields are highly transparent and their grey tint allows for more accurate color rendering.

They are made from premium anti-fog coated polycarbonate, and meet NFPA 70E, ASTM F2178, and ANSI Z87+S standards.

Part Numbers for Entire Hood / Window Assembly Including Hard Cap

Cal Rating	Part #
20 cal / cm ²	SWH-20H3P
40 cal / cm ²	SWH-40H3P
43 cal / cm ²	SWH-43H3P

Part Numbers for Replacement Windows ONLY

Cal Rating	Part #
20 cal / cm ²	WV-ARC-3P20V
40 cal / cm ²	WV-ARC-3P40V
43 cal / cm ²	WV-ARC-3P43V

20 & 43 Cal hoods come with navy color drape. 40 cal comes in khaki colored drape (pictured above)

GLOVE KITS



CLASS 00 Glove Kit Kit Part #GK-00-11	Class 00 Rubber Glove: LRIG-00-11 Leather Protector: PG-0-ADJS Glove Bag: GB-12
CLASS 0 Glove Kit Kit Part #GK-0-11	Class 0 Rubber Glove: LRIG-0-11 Leather Protector: PG-0-ADJS Glove Bag: GB-12
Class 1 Glove Kit Kit Part #GK-1-14	Class 1 Rubber Glove: LRIG-1-14 Leather Protector: LLPG-12 Glove Bag: GB-15
Class 2 Glove Kit Kit Part #GK-2-14	Class 2 Rubber Glove: LRIG-2-14 Leather Protector: LLPG-12 Glove Bag: GB-15
Class 3 Glove Kit Kit Part #GK-3-16	Class 3 Rubber Glove: LRIG-3-16 Leather Protector: LLPG-12 Glove Bag: GB-19

INSULATED RUBBER GLOVES

CLASS 00	<ul style="list-style-type: none"> Available in 11" or 14" length Max use volts 500 11" length: Part #LRIG-00-11-[Size] 14" length: Part #LRIG-00-14-[Size]
CLASS 0	<ul style="list-style-type: none"> Available in 11" or 14" length Max use volts 1000 11" length: Part #LRIG-0-11-[Size] 14" length: Part #LRIG-0-14-[Size]
CLASS 1	<ul style="list-style-type: none"> Available in 14" or 16" length Max use volts 7500 14" length: Part #LRIG-1-14-[Size] 16" length: Part #LRIG-1-16-[Size]
CLASS 2	<ul style="list-style-type: none"> Available in 14", 16" or 18" length Max use volts 17,000 14" length: Part #LRIG-2-14-[Size] 16" length: Part #LRIG-2-16-[Size] 18" length: Part #LRIG-2-18-[Size]
CLASS 3	<ul style="list-style-type: none"> Available in 14", 16" or 18" length Max use volts 26,500 14" length: Part #LRIG-3-14-[Size] 16" length: Part #LRIG-3-16-[Size] 18" length: Part #LRIG-3-18-[Size]
CLASS 4	<ul style="list-style-type: none"> Available in 16" or 18" length Max use volts 36,000 16" length: Part #LRIG-4-16-[Size] 18" length: Part #LRIG-4-18-[Size]

PROOF TEST • MAX USE VOLTAGE

CLASS	PROOF TEST A_C	MAX USE VOLTAGE A_C
00	2,500	500
0	5,000	1,000
1	10,000	7,500
2	20,000	17,000
3	30,000	26,500
4	40,000	36,000

14" SWITCHING GLOVES



GLOVE POWDER

An accessory for gloves, the 5 oz. squirt bottle powder helps absorb moisture and perspiration. Facilitates donning and doffing of gloves.

Part #POWDER-5-OZ



LEATHER PROTECTOR GLOVES



MEASURING FOR RUBBER INSULATED GLOVES



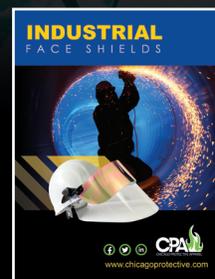
In order to determine the proper size for Class 0 and 00 insulating gloves, use a tape measure to find the circumference of your hand around the palm.

For example, 9" means your Class 0 and 00 glove size is 9. For Class 2 gloves add 1/2 size to allow for dexterity. For example, 9" means your Class 2 glove size is 9 1/2.

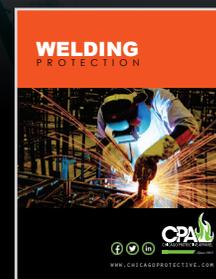
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Industrial Face Shields



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3425 Cleveland Street
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Tel. 847.674.7900

sales@chicagoprotective.com
www.chicagoprotective.com

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