

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



CPA 
CHICAGO PROTECTIVE APPAREL

DIVISION OF
MECHANIX WEAR



www.chicagoprotective.com



In the 2021 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 1

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, arc-rated gloves, or rubber insulating gloves with leather protectors (AR)
- Leather or dielectric footwear, or footwear tested to demonstrate no ignition, melting, dripping at the estimated incident energy exposure

Minimum Arc Rating of **4** cal/cm²



PPE 2

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, arc-rated gloves, or rubber insulating gloves with leather protectors (AR)
- Leather or dielectric footwear, or footwear tested to demonstrate no ignition, melting, dripping at the estimated incident energy exposure

Minimum Arc Rating of **8** cal/cm²



PPE 3

Arc-Rated Clothing

- 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 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, arc-rated gloves, or rubber insulating gloves with leather protectors (AR)
- Leather or dielectric footwear, or footwear tested to demonstrate no ignition, melting, dripping at the estimated incident energy exposure

Minimum Arc Rating of **25** cal/cm²



PPE 4

Arc-Rated Clothing

- 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 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, arc-rated gloves, or rubber insulating gloves with leather protectors (AR)
- Leather or dielectric footwear, or footwear tested to demonstrate no ignition, melting, dripping at the estimated incident energy exposure

Minimum Arc Rating of **40** cal/cm²

ARC FLASH CLOTHING

ESSENTIAL LINE

Our Essential line of arc flash clothing is made with varying layers of UltraSoft®, a fire- (FR) and arc-resistant (AR) blend of 88% cotton and 12% nylon. The addition of nylon enhances its level of protection (ATPV rating), durability, and has a softer, smoother feel against skin. The design of the clothing has a loose fit, which allows for additional protection from air pockets, and has room for FR baselayer or daily wear clothing to be worn underneath. Sewn with Nomex® thread, and components are all FR and AR. Meets NFPA 70E and ASTM F1506 standards. Available in 8, 12, 20 cal (PPE 2), 32 cal (PPE 3), and 43 cal (PPE 4) ratings.



ARC FLASH JACKETS

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 #
8 cal/cm ²	SWJ-8
12 cal/cm ²	SWJ-12
20 cal/cm ²	SWJ-20
32 cal/cm ²	SWJ-32
43 cal/cm ²	SWJ-43



ARC FLASH HOODS

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 neutral 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



ARC FLASH LEGGINGS

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



ARC FLASH COVERALLS

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



ARC FLASH COATS

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 #
8 cal/cm ²	SWC-8
12 cal/cm ²	SWC-12
20 cal/cm ²	SWC-20
32 cal/cm ²	SWC-32
43 cal/cm ²	SWC-43



ARC FLASH BIB OVERALLS

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 #
8 cal/cm ²	SWB-8
12 cal/cm ²	SWB-12
20 cal/cm ²	SWB-20
32 cal/cm ²	SWB-32
43 cal/cm ²	SWB-43



ARC FLASH PANTS

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 #
8 cal/cm ²	SWP-8
12 cal/cm ²	SWP-12
20 cal/cm ²	SWP-20
32 cal/cm ²	SWP-32
43 cal/cm ²	SWP-43

ARC FLASH CLOTHING

MASTER SERIES

CPA's Premium Lightweight line of arc flash clothing provides flexible and comfortable PPE Category 4 protection, with a 40 ATPV rating. It is made from among the lightest weight, and most flexible PPE 4 fabric solutions available on the market today. This inherently FR fabric ensemble is made up of an outer shell and quilted liner made from a blend of advanced, high performance fibers such as para-aramid, meta-aramid, OPF, and Novoloid. Both the fabric system and garments themselves are sewn with Nomex® thread. Garments have loose fit and meet NFPA 70E and ASTM F1506 standards.



40 CAL JACKETS

Our 40 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 #
40 cal/cm ²	SWJ-40



40 CAL LEGGINGS

Our 40 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



40 CAL COATS

Our 40 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 #
40 cal/cm ²	SWC-40



40 CAL BIB OVERALLS

Our 40 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 #
40 cal/cm ²	SWB-40



40 CAL PANTS

Our 40 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.



40 CAL HOOD

Our 40 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.

FR 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



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

Cal Rating	Part #	Product
12.3 cal/cm ²	CX-54	Shirt
12.3 cal/cm ²	CX-55	Long John Pants

Cal Rating	Part #	Product
12.3 cal/cm ²	CX-54	Shirt
12.3 cal/cm ²	CX-55	Long John Pants

ARC FLASH KITS PPE 2

CPA's arc flash kits come complete with the garments, head and face protection, gloves and accessories an electrical worker needs to stay protected from arc flash hazards on the job. Our PPE Category 2 kits are available in 8, 12, and 20 cal protection levels, and come in four different clothing configurations: jacket and bib, coverall, jacket and pants, and coat and leggings. The 8 and 12 cal kits come

with a 12 cal face shield kit which includes the hard hat, knit Nomex® balaclava, bracket, and highly transparent face shield. The 20 cal kits come with a full 20 cal hood. All PPE 2 kits include 11" Class 0 rubber insulating gloves with low voltage 10" leather protectors, safety glasses, earplugs, glove bag, and gear bag.

8 & 12 CAL ARC FLASH KITS



CLOTHING CONFIGURATIONS

8 CAL JACKET & BIB

- 8 Cal Jacket
Part #SWJ-8-SIZE
- 8 Cal Bib Overall
Part #SWB-8-SIZE

8 CAL JACKET & PANT

- 8 Cal Jacket
Part #SWJ-8-SIZE
- 8 Cal Bib Overall
Part #SWB-8-SIZE

8 CAL COAT & LEGGING

- 8 Cal Coat
Part #SWC-8-SIZE
- 8 Cal Leggings
Part #SW-401-8

8 CAL COVERALL

- 8 Cal Coverall
Part #SW-605-8-SIZE

12 CAL JACKET & BIB

- 12 Cal Jacket
Part #SWJ-12-SIZE
- 12 Cal Bib Overall
Part #SWB-12-SIZE

12 CAL JACKET & PANT

- 12 Cal Jacket
Part #SWJ-12-SIZE
- 12 Cal Bib Overall
Part #SWB-12-SIZE

12 CAL COAT & LEGGING

- 12 Cal Coat
Part #SWC-12-SIZE
- 12 Cal Leggings
Part #SW-401-12

12 CAL COVERALL

- 12 Cal Coverall
Part #SW-605-8-SIZE

8 & 12 CAL KIT COMPONENTS

All 8 & 12 Cal kits come with :

- Hard Cap (HC-Color-SLT)
- Face Shield with Chin Cup (WW-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)



12 Cal Jacket & Bib
Clothing Configuration
Shown Right



20 CAL ARC FLASH KITS



CLOTHING CONFIGURATIONS

20 CAL JACKET & BIB

- 20 Cal Jacket
Part #SWJ-20-SIZE
- 20 Cal Bib Overall
Part #SWB-20-SIZE

20 CAL JACKET & PANT

- 20 Cal Jacket
Part #SWJ-20-SIZE
- 20 Cal Bib Overall
Part #SWB-20-SIZE

20 CAL COAT & LEGGING

- 20 Cal Coat
Part #SWC-20-SIZE
- 20 Cal Leggings
Part #SW-401-20

20 CAL COVERALL

- 20 Cal Coverall
Part #SW-605-20-SIZE

20 CAL KIT COMPONENTS

All 20 Cal kits come with :

- 20 Cal Hood (SWH-20H)
- 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)



*20 Cal Coat & Legging
Clothing Configuration
Shown Right*

ARC FLASH KITS PPE 3 & 4

CPA's PPE 3 arc flash kits are rated at 32 ATPV, and come in four different clothing configurations: jacket and bib, coverall, jacket and pants, and coat and leggings. The garments are all rated at 32 ATPV, and come with a full hood and highly

transparent face shield, 14" Class 2 rubber insulating gloves with high voltage 12" leather protectors, safety glasses, earplugs, glove bag, and gear bag.

32 CAL ARC FLASH KITS



CLOTHING CONFIGURATIONS

32 CAL JACKET & BIB

- 32 Cal Jacket
Part #SWJ-32-SIZE
- 32 Cal Bib Overall
Part #SWB-32-SIZE

32 CAL JACKET & PANT

- 32 Cal Jacket
Part #SWJ-32-SIZE
- 32 Cal Bib Overall
Part #SWB-32-SIZE

32 CAL COAT & LEGGING

- 32 Cal Coat
Part #SWC-32-SIZE
- 32 Cal Leggings
Part #SW-401-32

32 CAL COVERALL

- 32 Cal Coverall
Part #SW-605-32-SIZE

32 CAL KIT COMPONENTS

All 32 Cal kits come with :

- 32 Cal 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)



*32 Cal Jacket & Pant
Clothing Configuration
Shown Right*



Our PPE 4 arc flash kit offerings come in our standard clothing option which is made of varying layers of UltraSoft, and is rated at 43 ATPV. We also offer a 40 ATPV premium lightweight option made from an outer shell from advanced arc- and fire-resistant materials with a quilted liner. The 43 cal kit comes in the jacket

and bib, jacket and pant, coat and legging, and coverall clothing options. A hood with hard cap, grey tinted face shield, and safety glasses, provides head and face protection. Kit also includes 14" Class 2 rubber insulating gloves, 12" leather protectors, ear plugs, glove bag, and gear bag to carry everything in.

43 CAL ARC FLASH KITS



CLOTHING CONFIGURATIONS

43 CAL JACKET & BIB

- 43 Cal Jacket
Part #SWJ-43-SIZE
- 43 Cal Bib Overall
Part #SWB-43-SIZE

43 CAL JACKET & PANT

- 43 Cal Jacket
Part #SWJ-43-SIZE
- 43 Cal Bib Overall
Part #SWB-43-SIZE

43 CAL COAT & LEGGING

- 43 Cal Coat
Part #SWC-43-SIZE
- 43 Cal Leggings
Part #SW-401-43

43 CAL COVERALL

- 43 Cal Coverall
Part #SW-605-43-SIZE

43 CAL KIT COMPONENTS

All 43 Cal kits come with :

- 43 Cal 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)



*43 Cal Coverall
Clothing Configuration
Shown Right*

ARC FLASH KITS PPE 4 MASTERS SERIES

In addition to the standard UltraSoft® arc flash clothing options, we manufacture a 40 cal premium lightweight option made from advanced arc- and flame-resistant materials. This inherently FR fabric system is made up of an outer shell and quilted liner made from a blend of high performance fibers such as para-aramid, meta-aramid, OPF, and Novoloid. The 40 cal kits come in three options

for clothing: jacket and bib, jacket and pant, and coat and leggings. Besides the garments, the kits include a hood, hard cap, face shield, 14" Class 2 rubber insulating gloves, 12" leather protectors, safety glasses, earplugs, glove bag, and gear bag.

40 CAL ARC FLASH KITS



CLOTHING CONFIGURATIONS

40 CAL JACKET & BIB

- 40 Cal Jacket
Part #SWJ-MS40-SIZE
- 40 Cal Bib Overall
Part #SWB-40-SIZE

40 CAL JACKET & PANT

- 40 Cal Jacket
Part #SWJ-MS40-SIZE
- 40 Cal Pants
Part #SWP-MS40-SIZE

40 CAL COAT & LEGGINGS

- 40 Cal Coat
Part #SWC-40-SIZE
- 40 Cal Leggings
Part #SW-401-40

40 CAL KIT COMPONENTS

All 40 Cal kits come with:

- 40 Cal Hood with Hard Cap (SWH-40H)
- 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)



*40 Cal Coat & Leggings
Clothing Configuration
Shown Right*



GARMENT CARE



- ✓ Inspect garments before each use
- ✓ Discontinue use if greatly contaminated or damaged
- ✓ Store garments properly
- ✓ Protect from grease, oil, flammable liquids, combustible materials

REPAIRS



- ✓ Check garments for holes, tears, or rips in the garment
- ✓ Same arc-rated materials used to manufacture the clothing used for repairs
- ✓ Reach out to directly to Chicago Protective Apparel about or for repairs

LAUNDERING



- ✓ Clean garment thoroughly
- ✓ Dry clean or machine wash at 140°F / up to 165°F 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

RUBBER INSULATED GLOVE CARE



- ✓ Voltage rated gloves must be tested using ASTM F496 standard for insulating gloves and sleeves
- ✓ Always keep in a storage container
- ✓ Keep assembled with leather protectors when not in use with the fingers pointing toward the opening of the container
- ✓ Container should be kept in a clean and dry location when not in use

LEATHER PROTECTOR GLOVE CARE



- ✓ Inspect before each use for damage, excess dirt, petroleum-based lubricants
- ✓ Replace damaged or contaminated gloves immediately
- ⓘ 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.

FACE SHIELD CARE & MAINTENANCE



- ✓ Inspect for cracks, excessive wear, damage
- ✓ Keep clean for best vision
- ✓ Clean with water and mild soap and dry with soft cloth until no contaminating residue left on the shield
- ✓ Store face shield in a shield stuff bag to protect it from dust and scratches.
- ⓘ Replace every three (3) years if in use, five (5) years if not in use

DAILY WEAR

CONSISTENT PROTECTION FOR ELECTRICAL WORKERS

AR/FR daily wear is meant to be worn throughout the workday, and can provide consistent protection to electrical workers. It is designed to have the comfort of streetwear, and can substantially reduce injury from unexpected arc flash incidents. CPA has a line of arc flash daily wear which includes AR/FR coveralls, jeans, hoodies, and work shirts.



ULTRASOFT® BUTTON UP WORK SHIRTS

Button up work shirts made from 7 oz. / sq. yd. UltraSoft®, a fire- and arc-resistant blend of 88% cotton and 12% nylon. Button up front closure, straight collar, two chest pockets with flaps and button closures, and cuffs with button closures. Available in khaki, medium blue, and navy blue.

Color	Part #
Khaki	625-USK
Medium Blue	625-USB
Navy	625-USN

FR HOODIES

FR COTTON FLEECE HOODIES

AR/FR hoodies made from navy 100% arc- and flame-resistant 100% cotton. Feature hood with adjustable drawstring ties, kangaroo pocket at waist, and knit cuffs and bottom hem. Arc rated at 18 ATPV. Meets NFPA 70E and NFPA 2112. Available in pullover and zipper front styles.



Zipper Style



Pullover Style

Style	Part #
Zipper Front	615-FRC-N-SIZE
Pullover	617-FRC-N-SIZE

COVERALLS

FR COTTON COVERALLS

Made from durable 9 oz./sq. yd. 100% flame-resistant cotton, these AR/FR coveralls are geared towards the oil and gas, electric and welding industries.

Designed for both comfort and protection, with features such as side elasticized waist, action back, gusset crotch, and numerous pockets.

Passes the ASTM F1506 test, meets NFPA 70E, and NFPA 2112. Guaranteed FR for the life of the garment with proper care. Arc rated at 9.2 ATPV. Available in navy and khaki.



Color	Part #
Navy	605-FRC-N-SIZE
Khaki	605-FRC-K-SIZE



RELAXED FIT AR/FR JEANS



FR relaxed fit jeans by Chicago Protective Apparel. Made from 100% cotton FR denim. Five-pocket style, gusset crotch and relaxed fit at seat and thigh for ease of wear. Tool pockets on right side, contrast stitching. Arc-resistant button closure at waist, covered FR brass zipper fly. Arc rated at 18.3 cal/sq. cm. NFPA 70E, PPE 2 and NFPA 2112 compliant.

Part #

606-IND-DNM-(Waist x Inseam)

ULTRASOFT® WORK PANT

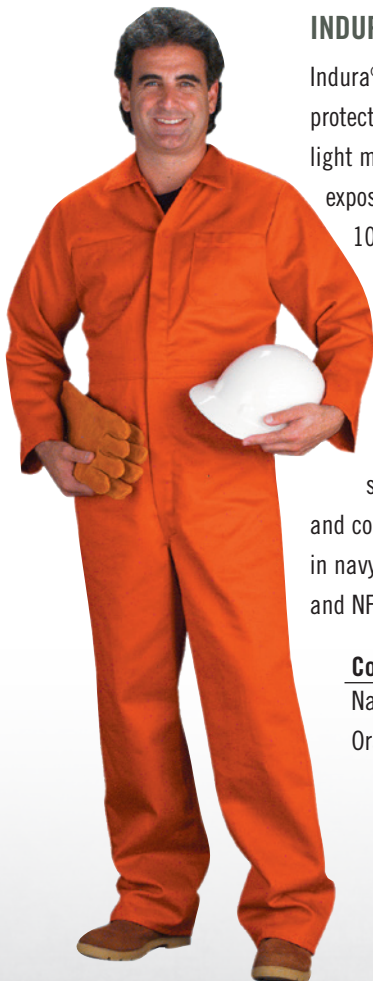


Work pant made from navy 9 oz. / sq. yd. UltraSoft®. Comes with belt loops, covered front snap and zipper closure, two back patch pockets, and two waist side slit pockets. Arc rated at 12.4 ATPV. Meets NFPA 70E PPE 2, and NFPA 2112.

Part #

606-USN-(Waist x Inseam)

INDURA® COVERALLS



Indura® coveralls provide multi-hazard protection against electric arc, flash fire, light molten iron metal splash, and welding exposures. 9 oz./sq. yd. in fabric weight, 100% cotton, and guaranteed flame-resistant for life of garment

Features such as concealed zipper front closure, numerous pockets, elasticized waistband and action back, and reinforced bar tack at high stress areas make this coverall durable and comfortable to wear everyday. Available in navy and orange colors. Meets NFPA 70E and NFPA 2112. Arc rated at 10.8 ATPV.

Color	Part #
Navy	605-IND-N-SIZE
Orange	605-IND-O-SIZE

ULTRASOFT® COVERALLS



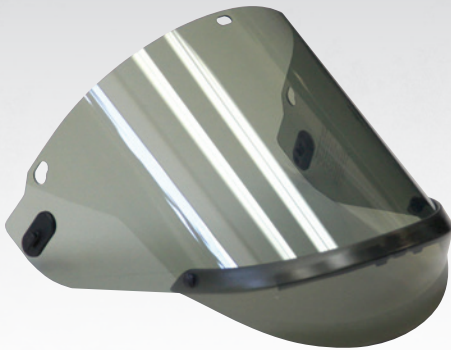
UltraSoft® is a flame-resistant blend consisting of 88% cotton and 12% nylon. The addition of nylon enhances the protective performance ATPV, durability of the garment, and provides a softer, smoother feel against skin.

Coverall features a total of six (6) pockets, namely two outside front chest, two front waist, and two rear patch pockets, concealed front brass zipper closure, and snap-free wrist. Comes in a 7 oz./sq. yd. khaki, and 9 oz. / sq. yd. navy UltraSoft®, with APTV ratings of 8.7 and 12.4, respectively.

Fabric Weight & Color	ATPV	Part #
7 oz./sq. yd. Khaki	8.7	605-USK-SIZE
9 oz./sq. yd. Navy	12.4	605-USN-SIZE

FACE & HEAD PROTECTION

FACE SHIELDS

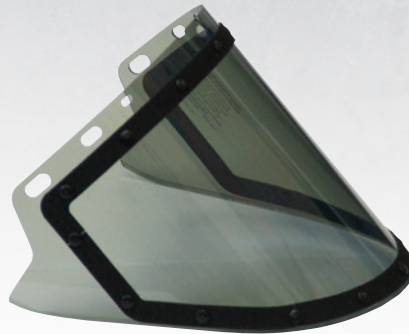


ADVANCED FACE SHIELD

- Highly transparent with neutral grey color tint for excellent field of view and accurate color rendering
- Anti-fog coated
- Transparent chin protector with more narrow profile
- Made from polycarbonate
- Meets NFPA 70E, ASTM F2178, and ANSI Z87+S

12 ATPV • **Part #WV-ARC-12AD-EC**

20 ATPV • **Part #WV-ARC-20AD-EC**



ADVANCED FACE SHIELD FOR HOODS

- Made from high-quality anti-fog coated polycarbonate
- Measures 10" x 20" x 0.06"
- Highly transparent with Light neutral grey tint for high visibility and accurate color rendering
- Velcro pattern for hoods
- Meets NFPA 70E, ANSI Z87.1, ASTM F2178
- Available in 25 ATPV and 40 ATPV
25 ATPV shields are single layer window
Part #WV-ARC-25HTV
40 ATPV shields are double layer window
Part #WV-ARC-40HTV



3PHASE LIFT-FRONT FACE SHIELD

- Lift front design makes shield user-friendly and comfortable for workers to use
- Great ergonomics and visibility
- Highly transparent, with light grey tint for more accurate color rendering
- Made from high-quality anti-fog coated polycarbonate
- Meets NFPA 70E
- Meets / tested ASTM F2178 and ANSI Z87+S
20 ATPV • **Part #WV-ARC-3P20V**
40 ATPV • **Part #WV-ARC-3P40V**



3Phase Shield Opened

FACE SHIELD KITS

12 CAL AD FACE SHIELD KIT

Our AD face shield kits includes a hard cap, cap bracket, and AD face shield for 12 cal arc flash head and face protection.

Part #SW-WVCK-AD

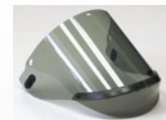


Kit Components

12 Cal AD Face Shield
#WV-ARC-12AD-EC

Hard Cap
#HC-COLOR-SLT

AD Slotted Cap Bracket
#HB-AD-SLT





DELUXE 12 CAL AD FACE SHIELD KIT

Our AD face shield kits include everything needed for 12 cal arc flash head and face protection, including:

- 12 cal AD face shield
- White dielectric hard cap
- AD slotted cap bracket
- Safety glasses
- Nomex® hood
- Fleece storage bag

Part #SW-WVCK-SL-AD



Kit Components

12 Cal AD Face Shield
#WV-ARC-12AD-EC

Hard Cap
#HC-COLOR-SLT

AD Slotted Cap Bracket
#HB-AD-SLT

Safety Glasses
#SW-SG

Nomex® Hood
#KN-51

Fleece Storage Bag
#SW-SB

BALACLAVAS



CARBONX® ULTIMATE BALACLAVA

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

ATPV	Ply Number	Part #
32	2	KCF-51
53	3	KC3-51



KNIT NOMEMX® BLEND BALACLAVA

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

ATPV	Ply Number	Part #
10.1	2	KN-51



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.

Full Kit
Rechargeable Battery
Bag of 6 Filters

RF-KIT
RF-BATT
RF-FLTR

GLOVES & ACCESSORIES

RUBBER INSULATING GLOVES

CPA offers rubber insulating gloves as part of their arc flash kits and separately. There are different lengths and classes of rubber insulating gloves, depending on the voltage of the task.

The chart to the right summarizes the different glove class levels with their respective tag colors, proof test voltage, and maximum use voltage.



GLOVE CLASS	LENGTH	Part #
00	11"	LRIG-00-11
00	14"	LRIG-00-14
0	11"	LRIG-0-11
0	14"	LRIG-0-14
1	14"	LRIG-1-14
1	16"	LRIG-1-16
2	14"	LRIG-2-14
2	16"	LRIG-2-16
2	18"	LRIG-2-18
3	14"	LRIG-3-14
3	16"	LRIG-3-16
3	18"	LRIG-3-18
4	14"	LRIG-4-14
4	16"	LRIG-4-16
4	18"	LRIG-4-16



ASTM CHART

Arc Flash Rubber Insulating Gloves

Class	Tag Color	Proof Test Voltage AC/DC	Maximum Use Voltage AC/DC
00	Beige	2,500 / 10,000	500 / 750
0	Red	5,000 / 20,000	1,000 / 1,500
1	White	10,000 / 40,000	7,500 / 11,250
2	Yellow	20,000 / 50,000	17,000 / 25,500
3	Green	30,000 / 60,000	26,500 / 39,750
4	Orange	40,000 / 70,000	36,000 / 54,000



CAUTION

**CHOOSE YOUR CLASS BASED UPON
MAX USE VOLTAGE NOT PROOF TEST!**

GLOVE KITS

Our glove kits come with rubber insulating gloves in Classes 00 to Class 3, leather protectors, and a glove bag.



High Voltage Glove Kit

Low Voltage Glove Kit

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

LEATHER PROTECTOR GLOVES

Leather protector gloves should always be worn over Insulating Rubber Gloves to provide mechanical protection against cuts, abrasions, and punctures. Made from top grain goat leather, the protectors increase the life of your rubber gloves. Use our low voltage 10" gloves with Class 00 and Class 0 insulating rubber gloves. For rubber insulating gloves of Class 1, 2, 4, or 4, use our high voltage gloves. They come in 12", 14", 16" lengths



GLOVE	LENGTH	Part #
Low Voltage	10"	PG-0-ADJS
	12"	LLPG-12
High Voltage	14"	LLPG-14
	16"	LLPG-16



14" SWITCHING GLOVES



ATPV	Part #
12	SW-234-12
20	SW-234-20
32	SW-234-32
43	SW-234-43

NOT ELECTRICALLY INSULATED



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



FACE SHIELD STORAGE BAG

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

Part #SW-SB

SIZING INFORMATION

SIZING INFORMATION FOR CLOTHING

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".

COVERALLS & BIB OVERALLS

Size	Inseam	Chest	Sleeve	Waist
S	32	36/38	32¼	30-32
M	32	40/42	33	34-36
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



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

JACKETS, COATS & SHIRTS

Size	Chest	Sleeve
S	36/38	32¼
M	40/42	33
L	44/46	33¾
XL	48/50	34½
2XL	52/54	35¼
3XL	56/58	35¾
4XL	60/62	36¼
5XL	64/66	36¾

PANTS

Size	Inseam	Waist
S	32	30-32
M	32	34-36
L	32	38-40
XL	32	42-44
2XL	32	46-48
3XL	32	50-52
4XL	32	54-56
5XL	32	58-60

INSEAM

Short	30
Regular	32
Tall	34

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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