



# Personal Protective Clothing



2021  
Version

## Arc Flash Protection Arcpro®

### What is electric arc?

An electric arc is a visible plasma discharge caused by electrical current ionizing gases in the air. Electric arc is explosive, it will last less than 1 second but will emit high radiant energy which can light and even melt daily clothes. The core temperature of electric arc can reach 20,000°C. Electric arc may induce many secondary hazards such as hot gases, molten metal splash, pressure waves, and even high decibel noise and electric shock.



Even though there is a fraction of a second, the harm may last lifelong. Every day, hundreds of thousands of electric workers are exposed to electric arc hazards, including electricians, wire maintenance inspectors, power plant workers, substation and transformer operators, maintenance technicians, etc.

### Hazards related to electric arc

#### 01 Electrocutation

When contacting electric arc directly, it will cause electrocution or severe burns. And even flame resistant garments cannot protect from the hazard of electrocution.

#### 02 Severe burns caused by electric arc

A worker may get injured even without contacting electric arc. Electric arc will generate extreme radiant heat which may melt tools and light daily clothes. And once the clothes are lighted, they will continue to burn and increase the injury.

#### 03 Severe burns caused by burst of clothing

The explosion or impulse caused by electric arc can blast apart daily clothes and expose the body to heat, flame and melted equipment.

#### 04 Severe burns caused by melted underwear made from synthetic fiber

Heat caused by electric arc will melt underwear made from synthetic fiber even the outerwear is not burning.

#### 05 Severe burns caused by the secondary flame

The intense heat of electric arc can cause fire disaster and additional explosions. For example, electric arc can light transformers or explode nearby constructions.

Generally, the incident energy is affected by different fault current, time duration and working environments (opened air or sealed air). It is important to learn that the time duration of electric arc is critical to burn degree. Since the energy caused by electric arc is affected by time duration and current, the burn degree caused by lower fault current and longer time duration will be severer than it caused by higher fault current and short time duration. And even a relatively lower voltage system (480/227V) will form an electric arc of 3 to 4 inches and will last a long time.

There are many variables for electric arc explosion. Therefore, although statistical method could be used to analyze hazards caused by arc current, the real hazard may be different. Due to the unpredictability of arc explosion, electrical workers will definitely need protective clothing in the workplace where electric arc energy can affect.



## Arc Flash Protection Arcpro®

### Why should we choose arc flash protective garments?

Arc flash protective garments are made of C&G® Arcpro® inherent flame resistant fabric, which is designed to protect from electric arc.

#### 01 Excellent protection

Thermal protection performance, Crack resistance, Antistatic performance

#### Inherent flame resistance comes from the molecular structure of fiber

Arcpro® fiber is inherently flame resistant. Its flame resistance comes from the fiber itself instead of chemical treatment on the surface. Therefore, C&G Arcpro® arc flash protective garments provide permanent protection, and the performance will not be washed out or worn away.

Arcpro® arc flash protective garments neither melt nor burn or support combustion. When exposed to fire, the garments will form a protective barrier between heat resource and the body, which provides people more time to escape.

#### Prevent garments from burst caused by explosion of electric arc

As being blended with Arcpro® high-strength fiber, Arcpro® arc flash protective garments provides better anti-burst performance compared with chemical treated cotton garments of same weight.

#### Prevent fiber from electrostatic accumulation

Static may bring inconvenience or threat to Power Industry, so Arcpro® is mixed with anti-static fiber. Thus, Arcpro® arc flash protective garments can reduce static coming from the friction between fiber and fiber, or fiber and skin. Meanwhile, it helps to reduce static even in low temperature or low humidity condition, which makes it more comfortable to wear and prevents people from the risk of electrostatic accumulation in explosive environments.

Besides, proper grounding procedures are necessary to remove the static in explosive environments.

#### 02 Outstanding durability

With built-in electric arc protection and longer lifecycle. High value, light weight, more comfort, safety comes first. Arcpro® is compliant with NFPA 70E requirements. This means when used properly, the wearers are protected against the heat of electric arc exposure.

#### No need to sacrifice protection for comfort

With durability for a longer lifecycle and better value, Arcpro® arc flash garments stand up to more washes and are more durable than FR cotton nylon blend garments of similar weight. They are also designed to retain their appearance throughout extended on-the-job use and repeated laundering. Your customers will see the difference. And you'll get more cycles out of every garment.

#### Could stand up to tough laundry conditions

Built-in protection you expect from Arcpro®. The protection of Arcpro® cannot be washed out or worn away—a powerful advantage over treated FR garments. It's also good to know, this innovative, new fabric requires no special laundering processing and provides excellent protection wash after wash.

#### Strength and tear resistance, wash after wash

A garment's first job is protecting workers from electric arc incidents - rips and tears aren't an option. In fact, a single rip or tear can mean replacing the entire garment. But Arcpro® helps minimize that risk and the life expectancy of the garment. Because it is twice as strong as FR cotton nylon blends, and it stays twice as strong, even after 100 washing or UV exposure.

Laundering can be as hard on a fabric as wearing it. That's why ArcPro® was created to stand up to repeated washes. It starts off stronger and stays stronger than FR cotton nylon blends after repeated washes. Arcpro® provides better tear resistance than FR cotton nylon blends whether the fabric is tested when new or after it has gone through 100 washes.

Category IV 65 cal/cm<sup>2</sup> Arc Flash Protective Suit

**Material:** Arcpro® Inherently flame resistant fabric

**Description:** Inherently flame resistant and its protection cannot be washed out or worn away, multilayer combination is lighter than FR cotton nylon blend garments, reducing the risk of heat stress.

Flame resistant reflective tapes can be added to make it highly visible.

And the cooling system can be installed on the hood to keep the user cool.

**ATPV Rating:** 65 cal/cm<sup>2</sup>

**Color:** Navy blue, Orange

Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E



Item No.	Description
ArcPro-J-65cal	65 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-B-65cal	65 cal/cm <sup>2</sup> arc flash protective bib-overall
ArcPro-H-65cal	65 cal/cm <sup>2</sup> arc flash protective hood
ArcPro-G-65cal	65cal/cm <sup>2</sup> arc flash protective gloves

Category IV 65 cal/cm<sup>2</sup> Arc Flash Protective Suit



**Category IV 55 cal/cm<sup>2</sup> Arc Flash Protective Suit**



**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame retardant and its protection cannot be washed out or worn away, multilayer combination is lighter than flame resistant cotton/nylon blended garments, reducing the risk of heat stress. Flame resistant reflective tapes can be added to make it highly visible. And the cooling system can be installed on the hood to keep the user cool.  
**ATPV Rating:** 55 cal/cm<sup>2</sup>  
**Color:** Navy blue, Orange  
 Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E

Item No.	Description
ArcPro-R-55cal	55 cal/cm <sup>2</sup> arc flash protective robe
ArcPro-J-55cal	55 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-P-55cal	55 cal/cm <sup>2</sup> arc flash protective pants
ArcPro-B-55cal	55 cal/cm <sup>2</sup> arc flash protective bib-overall
ArcPro-H-55cal	55 cal/cm <sup>2</sup> arc flash protective hood
ArcPro-G-55cal	55 cal/cm <sup>2</sup> arc flash protective gloves
ArcPro-L-55cal	55 cal/cm <sup>2</sup> arc flash protective leggings

**Category IV 40 cal/cm<sup>2</sup> Arc Flash Protective Suit**

**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away, multilayer combination is lighter than flame retardant cotton/nylon blended garments, reducing the risk of heat stress. Flame resistant reflective tapes can be added to make it highly visible. And the cooling system can be installed on the hood to keep the user cool.  
**ATPV Rating:** 40 cal/cm<sup>2</sup>  
**Color:** Dark blue, Medium blue, Grey, Orange  
 Tested to ASTM F1959, ASTM F2621, IEC 61482, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E.



Item No.	Description
ArcPro-R-40cal	40 cal/cm <sup>2</sup> arc flash protective robe
ArcPro-J-40cal	40 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-P-40cal	40 cal/cm <sup>2</sup> arc flash protective pants
ArcPro-B-40cal	40 cal/cm <sup>2</sup> arc flash protective bib-overall
ArcPro-H-40cal	40 cal/cm <sup>2</sup> arc flash protective hood
ArcPro-LH-40cal	40 cal/cm <sup>2</sup> arc flash protective Lift-Front hood
ArcPro-G-40cal	40 cal/cm <sup>2</sup> arc flash protective gloves
ArcPro-L-40cal	40 cal/cm <sup>2</sup> arc flash protective leggings

**Category IV 40 cal/cm<sup>2</sup> Arc Flash Protective Lift-Front Arc Hood**

**Material:** Arcpro® inherently flame resistant fabric  
 Shield-Polycarbonate, Bracket- Nylon  
**Color:** Fabric- Dark blue, Medium blue, Grey, Orange  
 Shield- Grey, Bracket- Blue  
**Description:** Lift-front technology allows for enhanced breathability and communication. Toric lens design and nanoparticle grey color provide excellent field of view, enhanced color recognition, and reduced internal glare. Premium anti-fog & anti-abrasion coated. It is used in association with dielectric head protection and accessories to provide protection from the hazards of arc flash.



**Category III 33 cal/cm<sup>2</sup> Arc Flash Protective Suit**



**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away, multilayer combination is lighter than flame retardant cotton/nylon blended garments, reducing the risk of heat stress. Flame resistant reflective tapes can be added to make it highly visible. And the cooling system can be installed on the hood to keep the user cool.  
**ATPV Rating:** 33 cal/cm<sup>2</sup>  
**Color:** Dark blue, Medium blue, Grey, Orange  
 Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E.

Item No.	Description
ArcPro-R-33cal	33 cal/cm <sup>2</sup> arc flash protective robe
ArcPro-J-33cal	33 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-P-33cal	33 cal/cm <sup>2</sup> arc flash protective pants
ArcPro-B-33cal	33 cal/cm <sup>2</sup> arc flash protective bib-overall
ArcPro-H-33cal	33 cal/cm <sup>2</sup> arc flash protective hood
ArcPro-G-33cal	33 cal/cm <sup>2</sup> arc flash protective gloves
ArcPro-L-33cal	33 cal/cm <sup>2</sup> arc flash protective leggings

## Category II 25 cal/cm<sup>2</sup> Arc Flash Protective Suit

**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away, multilayer combination is lighter than flame retardant cotton/nylon blended garments, reducing the risk of heat stress. Flame resistant reflective tapes can be added to make it highly visible.

**ATPV Rating:** 25 cal/cm<sup>2</sup>

**Color:** Medium blue

Tested to ASTM F1959, ASTM F2621, IEC 61482, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E.



Item No.	Description
ArcPro-R-25cal	25 cal/cm <sup>2</sup> arc flash protective robe
ArcPro-J-25cal	25 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-P-25cal	25 cal/cm <sup>2</sup> arc flash protective pants
ArcPro-B-25cal	25 cal/cm <sup>2</sup> arc flash protective bib-overall
ArcPro-C-25cal	25 cal/cm <sup>2</sup> arc flash protective coverall
ArcPro-H-25cal	25 cal/cm <sup>2</sup> arc flash protective hood
ArcPro-LH-25cal	25 cal/cm <sup>2</sup> arc flash protective Lift-Front hood
ArcPro-G-25cal	25 cal/cm <sup>2</sup> arc flash protective gloves
ArcPro-L-25cal	25 cal/cm <sup>2</sup> arc flash protective leggings

## Category II 12 cal/cm<sup>2</sup> Arc Flash Protective Suit

**Material:** Arcpro® Inherently flame resistant fabric

**Description:** Inherently flame resistant and its protection cannot be washed out or worn away. Flame resistant reflective tapes can be added to make it highly visible

**ATPV Rating:** 12 cal/cm<sup>2</sup>

**Color:** Navy blue, Orange

Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E



Item No.	Description
ArcPro-R-12cal	12 cal/cm <sup>2</sup> arc flash protective robe
ArcPro-CT-12cal	12 cal/cm <sup>2</sup> arc flash protective jacket
ArcPro-P-12cal	12 cal/cm <sup>2</sup> arc flash protective pants
ArcPro-S-12cal	12 cal/cm <sup>2</sup> arc flash protective shirt
ArcPro-C-12cal	12 cal/cm <sup>2</sup> arc flash protective coverall
ArcPro-FS-12cal	12 cal/cm <sup>2</sup> arc flash protective face shield
ArcPro-LH-12cal	12 cal/cm <sup>2</sup> arc flash protective Lift-Front hood
ArcPro-G-12cal	12 cal/cm <sup>2</sup> arc flash protective gloves
ArcPro-L-12cal	12 cal/cm <sup>2</sup> arc flash protective leggings

## Category II 25 cal/cm<sup>2</sup> Arc Flash Protective Lift-Front Arc Hood

**Material:** Arcpro® inherently flame resistant fabric  
 Shield-Polycarbonate, Bracket- Nylon

**Color:** Fabric- Medium blue  
 Shield- Grey, Bracket- Blue

**Description:** Lift-front technology allows for enhanced breathability and communication. Toric lens design and nanoparticle grey color provide excellent field of view, enhanced color recognition, and reduced internal glare. Premium anti-fog & anti-abrasion coated. It is used in association with dielectric head protection and accessories to provide protection from the hazards of arc flash.



## Category II 12 cal/cm<sup>2</sup> Arc Flash Face Shield

**Material:** Arcpro® inherently flame resistant fabric  
 Shield-Polycarbonate, Bracket- Nylon

**Color:** Fabric- Navy blue, Orange  
 Shield- Grey, Bracket- Blue

**Description:** Lift-front technology allows for enhanced breathability and communication. Toric lens design and nanoparticle grey color provide excellent field of view, enhanced color recognition, and reduced internal glare. Premium anti-fog & anti-abrasion coated. It is used in association with dielectric head protection and accessories to provide protection from the hazards of arc flash.



**Category II 12 cal/cm<sup>2</sup> Arc Flash Protective Suit-Winter Coat**



**Material:** Arcpro® Inherently flame resistant fabric and 3M FR Thinsulate  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away, multilayer combination is lighter than flame resistant cotton nylon blend garments, reducing the risk of heat stress. Flame resistant reflective tapes can be added to make it highly visible.  
**ATPV Rating:** 12 cal/cm<sup>2</sup>  
**Color:** Navy blue, Orange  
 Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standards of NFPA 70E

Item No.	Description
ArcPro-WJ-12cal	12 cal/cm <sup>2</sup> winter arc flash protective coat

**Category II 8cal/cm<sup>2</sup> Arc Flash Protective Suit**



**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away. Flame resistant reflective tapes can be added to make it highly visible  
**ATPV Rating:** 8 cal/cm<sup>2</sup>  
**Color:** Dark blue, Medium blue, Grey, Orange  
 Tested to ASTM F1959, ASTM F2621, IEC 61482, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E.

Item No.	Description
Arcpro-J-8cal	8 cal/cm <sup>2</sup> arc flash protective jacket
Arcpro-P-8cal	8 cal/cm <sup>2</sup> arc flash protective pants
Arcpro-S-8cal	8 cal/cm <sup>2</sup> arc flash protective shirt
Arcpro-C-8cal	8 cal/cm <sup>2</sup> arc flash protective coverall
Arcpro-FS-10cal	14 cal/cm <sup>2</sup> arc flash protective face shield
Arcpro-GLV-8cal	8 cal/cm <sup>2</sup> arc flash protective gloves

**Category I 6cal/cm<sup>2</sup> Arc Flash Protection Suit**

**Material:** Arcpro® Inherently flame resistant fabric  
**Description:** Inherently flame resistant and its protection cannot be washed out or worn away. Flame resistant reflective tapes can be added to make it highly visible.  
**ATPV Rating:** 6 cal/cm<sup>2</sup>  
**Color:** Medium blue  
 Tested to ASTM F1959, DL/T 320-2010, GB 8965.1-2009 and meet the standard of NFPA 70E



Item No.	Description
Arcpro-J-6cal	6 cal/cm <sup>2</sup> arc flash protective jacket
Arcpro-P-6cal	6 cal/cm <sup>2</sup> arc flash protective pants
Arcpro-S-6cal	6 cal/cm <sup>2</sup> arc flash protective shirt
Arcpro-C-6cal	6 cal/cm <sup>2</sup> arc flash protective coverall
Arcpro-G-6cal	6 cal/cm <sup>2</sup> arc flash protective gloves

**Category II Arc Flash Protective Nanoparticle Grey Face Shield**



**ATPV:** 14cal/cm<sup>2</sup>  
**Description:** Nanoparticle grey color provides excellent field of view and enhanced color recognition. Excellent downward vision with transparent chin protector. It is used in association with dielectric head protection and accessories to provide protection from the hazards of arc flash.  
 Tested to ASTM F2178, ANSI Z87+S and meet the standard of NFPA 70E.

Item No.	Description
Arcpro-FS-14cal	14 cal/cm <sup>2</sup> arc flash protective face shield, grey

## Insulating Gloves

Model	Class	Usage Voltage	Test Voltage	Length
INDUSULATION -E00-LORG-S280 INDUSULATION -E00-LORG-S360	00	0.5KV	2.5KV	280mm, 360mm
INDUSULATION -E0-LORG-S280	0	1KV	5KV	280mm
INDUSULATION -E1-LORG-S360	1	7.5KV	10KV	360mm
INDUSULATION -E2-LORG-S360 INDUSULATION -E2-LORG-S410	2	17KV	20KV	360mm, 410mm
INDUSULATION -E3-LORG-S410	3	26.5KV	30KV	410mm
INDUSULATION -E4-LORG-S410	4	36KV	40KV	410mm

**Material:** Natural Latex

**Color:** orange.

**Package:** 1 pair/bag

**Characteristics:** For electrical insulation work in the industrial field, we still use the leading super soft technology of the live working series, thinner thickness, 3D stereo hand shape does not reduce our leading quality promise and meet the needs of customers.

**Standards:** EN60903, GB/T 17622

**Optional Function:** Acid-resistant, ozone-resistant, and -20°C extremely low temperature (AZC)



class 00



class 0



class 1



class 2



class 3



class 4

## Leather Protective Gloves

**Material:** Goat Skin

**Standards:** Meet the standard of EN 388.

**Feature:** Soft, dext, comfortable, adjustable tightness



Grade	Length	Thickness	Color
Live-GL10	25mm	0.7mm	White
Live-GL11.5	29mm	0.7mm	White
Live-GL12.5	31mm	0.7mm	White

## Insulating Sleeves



**Feature:** Curved Elbow Sleeves

**Standard:** ASTM D1051-14a. Type I, non-resistant to ozone

**Application:** Protect workers from electrical shock. These sleeves are intended to use exclusively for electrical purposes.

## Insulating Boots

**Item No.:** CG-DBS4

**Voltage grade:** Test Voltage: 20KV ESR: 18KV

**Feature:** Lining Material - Comes with extra comfort and durability

Upper Construction - Waterproof (Electrically verified), Easy for cleaning Sole/Heel - Good abrasion resistant for extra durability

Steel Toe Cap - Epoxy coated toe caps for anti-corrosion

Steel Shank - Doubled ribbed ladder shank to improved midfoot stability and support

Chemical Resistance - Sole & Upper - Resistant towards strong acids and alkalis

Finishing - Lacquer coating for weather protection

Packing - Recyclable Polybag & 6 pairs in a carton

**Standard:** CE certificate

**EN ISO 20345: 2011 (SB E FO SRA)**

**EN 50321: 1999 Class 0**

**ASTM F1117-03 (min 20,000 VAC)**

**Application:** For working environment with high voltage hazards

Power stations operations

Substation (step-up/step-down/distribution) operations

Electrical hazards with wet condition / water exposure

High current leakage hazards

Electrical installations.



EURO	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
UK	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
US	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

## Multifunctional Kit Bag

Item No.	Description
CG-X502	600D orange nylon oxford, waterproof and wear-resistant With shoulder straps detachable, and bottom antiskid and wear-resistant. Dimension: 42*23*31cm





## Arc Flash Protective Kits



### 65ca/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-65cal

1. 65cal/cm<sup>2</sup> arc flash protective jacket
2. 65cal/cm<sup>2</sup> arc flash protective bib-overall
3. 65cal/cm<sup>2</sup> arc flash protective hood
4. 65cal/cm<sup>2</sup> arc flash protective gloves
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag

### 55cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-55cal

1. 55cal/cm<sup>2</sup> arc flash protective robe
2. 55cal/cm<sup>2</sup> arc flash protective hood
3. 55cal/cm<sup>2</sup> arc flash protective gloves
4. 55cal/cm<sup>2</sup> arc flash protective leggings
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



### 40cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-40cal

1. 40cal/cm<sup>2</sup> arc flash protective Jacket
2. 40cal/cm<sup>2</sup> arc flash protective bib-overall
3. 40cal/cm<sup>2</sup> arc flash protective hood
4. 40cal/cm<sup>2</sup> arc flash protective gloves
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



### 33cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-33cal

1. 33cal/cm<sup>2</sup> arc flash protective robe
2. 33cal/cm<sup>2</sup> arc flash protective hood
3. 33cal/cm<sup>2</sup> arc flash protective gloves
4. 33cal/cm<sup>2</sup> arc flash protective leggings
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



## Arc Flash Protective Kits

### 25cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-25cal

1. 25cal/cm<sup>2</sup> arc flash protective Jacket
2. 25cal/cm<sup>2</sup> arc flash protective pants
3. 25cal/cm<sup>2</sup> arc flash protective Hood
4. 25cal/cm<sup>2</sup> arc flash protective gloves
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



### 12cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-12cal

1. 12cal/cm<sup>2</sup> arc flash protective jacket
2. 12cal/cm<sup>2</sup> arc flash protective pants
3. 14cal/cm<sup>2</sup> arc flash protective face shield
4. 12cal/cm<sup>2</sup> arc flash protective gloves
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



### 8cal/cm<sup>2</sup> Arc Flash Protective Clothing Kit

Item No.: ArcPro-Kit-8cal

1. 8cal/cm<sup>2</sup> arc flash protective jacket
2. 8cal/cm<sup>2</sup> arc flash protective pants
3. 14cal/cm<sup>2</sup> arc flash protective face shield
4. 8cal/cm<sup>2</sup> arc flash protective gloves
5. Safety helmet-ABS material
6. Insulating gloves
7. Multifunctional kit bag



## ElectricPro Conductive Suit

**Item:** High Voltage Shielding Clothing

**Item No.:** SC-JP-500KV

**Description:** The two-piece conductive suit is made of a blend of metal fiber and aramid fiber. It applies to the protection for live-line work on the electric equipment below high voltage of 500KV. Meet the standard of GB/T6568-2008.

It is born of a need to let the lineman get closer to his work. The clothing is bonded to the conductor, placing the lineman within the field of electricity, not as a conductor himself but insulated, and allows him to work with his hand on the conductor hardware. Thus, transmission line maintenance efficiency and effectiveness are advanced without endangering the lineman and without interrupting customer service.



**Conductive Gloves**

**Item No.:** CE-G-001

It should be worn together with 500KV high voltage shielding suit.



**Cut-resistant and Conductive Gloves**

**Item No.:** CE-CRG-005

It should be worn together with 500KV high voltage shielding suit.



**Conductive Socks**

**Item No.:** CE-SK-002

It should be worn together with 500KV high voltage shielding suit.



**Conductive Shoes**

**Item No.:** CE-SE-003

It should be worn together with 500KV high voltage shielding suit.

## Winter AC High Voltage Electrostatic Shielding Clothing

**Item No.:** BP-QT-1000kv

**Description:** The one-piece conductive suit is made of a blend of metal fiber and aramid fiber. It applies to the protection for live-line work on the electric equipment below high voltage of 1000KV. Meet the standard of GB/T6568-2008.



## ElectricPro Conductive Suit

**Item:** AC High Voltage Electrostatic Shielding Clothing

**Item No.:** HVS-JP-500KV, HVS-JP-750KV

**Description:** The two-piece conductive suit is made of a blend of conductive material and textile fiber. It applies to protect substations inspectors and line workers from 500KV and 750KV AC high voltage electric field, meet the standards of GB/T18136-2008.

It is born of a need to let the lineman get closer to his work. The clothing is bonded to the conductor, placing the lineman within the field of electricity, not as a conductor himself but insulated, and allows him to work with his hands on the conductor hardware. Thus, transmission line maintenance efficiency and effectiveness are advanced without endangering the lineman and without interrupting customer service.



**Conductive Gloves**

**Item No.:** CE-G-001

It should be worn together with 500KV AC high voltage electrostatic shielding suit.



**Cut-resistant and Conductive Gloves**

**Item No.:** CE-CRG-005

It should be worn together with 500KV AC high voltage electrostatic shielding suit.



**Conductive Socks**

**Item No.:** CE-SK-002

It should be worn together with 500KV AC high voltage electrostatic shielding suit.



**Conductive Shoes**

**Item No.:** CE-SE-003

It should be worn together with 500KV AC high voltage electrostatic shielding suit.

## Firefighting Suit



## Firefighting Jacket & Pants



**Material:**  
 Outer shell: Nomex® IIIA  
 Moisture barrier: Kevlar®/Nomex® felt with PTFE membrane  
 Thermal barrier: Kevlar®/Nomex® felt  
 Comfortable layer: Nomex®/FR viscose woven fabric  
**Color:** Navy Blue  
**Feature:**  
 Front closed by heavy duty FR zipper  
 High collar fully lined with throat closure tab  
 Elasticated braces with quick release buckles  
 Inset sleeves design  
 Knee and elbow reinforcement  
 Radio pocket on the left breast  
 Knitted cuffs with thumb loop  
 Two hand warm pockets  
 Two side hip pockets  
 Velcro tab wrist closure  
 Anti - wicking storm cuffs  
 DRD (Drag Rescue Device) Strap  
**Application:** Fire Rescue and Evacuation  
**Standard:** EN469:2005 CCCF certificate, conforms to GA 10-2014 standard  
**Optional Accessories:** Firefighting helmet / boots / gloves

## Firefighting Covering

**Material:** 3 layers laminated aluminized fabric

**Feature:**

Soft and comfortable  
 Light weight to carry, only 0.6KG and easy to don and doff  
 Special mirror reflective technic, suitable for proximity fire rescue under industrial radiant heat up to 900°C for 15 minutes.

**Application:**

Proximity fire rescue  
 Searching after fire accident and do cutting operation  
 Fire extinguishing in narrow space like tunnel, underground tunnel, etc.  
 Rescue in high temperature



Fabric Property	Value	Testing Method
Breaking Force(warp)	≥1050N	ISO 1421-1
Breaking Force(weft)	≥800N	ISO 1421-1
Tearing Force(warp)	≥20N	ISO 4674-2

Fabric Property	Value	Testing Method
Tearing Force( weft)	≥30N	ISO 4674-2
Flame retardation	Afterglow≤2s	ISO 15025
Flame retardation	Afterflame≤2s	ISO 15025

## Thermal Insulation Clothing

**Material:** 7 layers patented high technology fabrics, composited by flame retardant viscose and other materials.

**Feature:**

Withstand high-heat up to 1600°C  
 Superior protective performance on high pressure and moisture vapor, superheated vapor and high temperature liquid  
 The aluminized material is not easy to peel from the base material

**Application:**

Proximity fire rescue  
 Emergency rescue  
 Not suitable for entering or passing through fire ground

**Standard:** EN ISO 1486, NF EN 407



### Proximity Firefighting Face Shield



**Material:** Polycarbonate gold plating  
**Feature:**  
 Resist 120m/s high speed impact  
 Reflect 1000°C or above high temperature radiant heat and 95% of Heat  
**Application:**  
 Proximity fire rescue  
 Searching after fire accident and do cutting operation  
 Fire extinguishing in narrow space like tunnel, underground tunnel, etc.  
 Rescue in high temperature

### Firefighting Jacket & Pants



### Firefighting Jacket & Pants



Fire Protection-Dupont® Nomex® IIIA

Dupont® Nomex® IIIA is composed of 93% 1.7 decitex Dupont® Nomex® meta-aramid, 5% Dupont® Kevlar® para-aramid and 2% antistatic fiber. This innovative solution expands to form a stable and inert barrier between the fire and skin, which gives wearers the valuable seconds they need to help them escape from the hazard.

It is one of the best products for flame retardant and heat resistant protection. It is widely used all over the world, especially for Petroleum, Oil & Gas, Chemical industry, Paint and other environments where flash fire may occur. Many of firefighters, racing drivers, U.S. military personnel and even astronauts wear protective garments made of Nomex® IIIA fabric.

Why do we choose C&G® Nomex® IIIA flame retardant garments?

Nomex® is inherently flame retardant. The fiber cannot be burned itself, so the protection is permanent. Since the protection comes from the fiber itself, it will not get weak after times of washing and usage. When exposed to fire, Nomex® fiber will get swelled and thicker to form a protective barrier between heat source and body. The protective barrier will last until the garment cools down so that people will have valuable seconds to escape.

For the flame retardant fabric treated by chemicals, its FR performance comes from the chemicals on the surface of the fabric. When exposed to flash explosion, the chemicals will react to extinguish fire. The reaction depends on the fire energy and the time of the fabric exposed to the fire.

With the increasing of time and energy, the flame retardant chemical will be induced to react, and the burned degree will be obviously increased. The chemicals and fabric will cause vigorous slash fire, hot gas, smoke and tar, which will hazard the body seriously.

01 Unique protective barrier to high temperature and flame

When exposed to high temperature continuously, Dupont® Nomex® IIIA fiber will carbonize and get thicker to prevent heat conduction between heat source and body to increase protection and reduce burn injury (See Pic.1). The strong protective barrier will keep soft and tough until the garment cools down. It will provide time for the user to escape.

Pic1 It shows that Dupont® Nomex® IIIA garment will carbonize and get thicker when exposed to high temperature and flame.

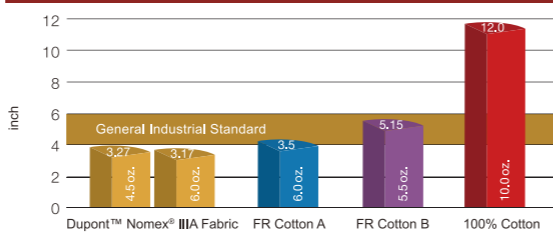


The picture shows theoretical thickness According to the assembling procedure of single fabric suggested by ASTM D-4108 Thermal protective performance tests (TPP)

02 Excellent performances in Vertical Burning Test

Dupont® Nomex® IIIA flame retardant fabric can easily pass Vertical Burning Test (A basic flame retardant test which tests if the fabric will be lighted and burned after being exposed to fire for 12 seconds). Most protective fabric can pass Vertical Burning Test, but 100% Cotton, CVC and TC fabric will be lighted and cannot pass the test (See Pic.2).

Pic2 Results of Vertical Burning Test



FTMS 191 A; 5903.1. All fabrics were washed one time

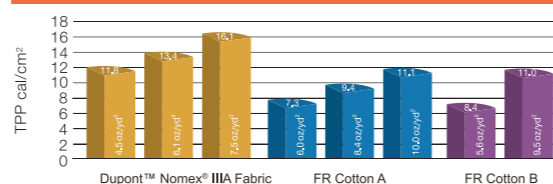
03 Outstanding performances in Thermal Protective Performances (TPP) Test

TPP tests the protective performance of the fabric in deflagration. The higher the TPP value is, the better the protective performance is.

TPP test shows that Dupont® Nomex® IIIA fabric performs much better than chemical-treated FR fabric, and even lighter Dupont® Nomex® IIIA fabric performs better than heavier chemical-treated FR fabric (See Pic.3).

Pic3 TPP Test Results of Single Fabric

The higher the TPP value is, the better the protective performance is.



04 Excellent wear-resistant, tear-resistant and chemical-resistant performance

Nomex® IIIA fabric performs much better than 100% Cotton, CVC and TC fabric in wear-resistance and tear-resistance, and it will make the garments with a longer life.

Besides, Nomex® IIIA fabric is chemical-resistant, it resists most of inorganic chemicals and organic solvent, thus it is anti-corrosion and aging-resistant. In different industrial area, the chemical-resistant performance enhances the durability of the garments, and the garments could be washed by organic solvent to remove the flammable contaminants without affecting the life span of the garments.

1. The chemical-resistant performance refers that the fiber can resist the degradation instead of the penetration of chemicals. The fabric of Dupont® Nomex® IIIA which is covered or coated by certain materials could be used to prevent the penetration of chemicals.  
2. Originated from STP1133 of ASTM.

05 Unique economy and durability

Generally, the durability of Dupont® Nomex® IIIA fabric is 3 to 5 times better than other protective fabrics (including 100% Cotton, CVC, TC and FR Cotton fabric). Besides, the flame resistance of Dupont® Nomex® IIIA fabric is permanent and will not get weak after times of washing and usage.

Chart1 lists the durability of different FR garments.

Chart1 Durability Parameters of FR Protective Garments				
The higher the value is, the better the durability is.				
Fabric	Strength of Extension (LB) ASTM D-5034	TRAP Tear Strength (LB) FTMS 191B-5136	ELEMENDORF Tear Strength (LB) ASEM D-1424	TABER Friction (SEM) ASEM D-3884
150g/m² NOMEX® IIIA fabric	143	30	6	688
200g/m² NOMEX® IIIA fabric	212	38	10	1213
200g/m² certain brand FR Cotton	88	5	4	595
300g/m² certain brand FR Cotton	124	8	7	688
186g/m² certain brand FR Cotton	58	8	5	330
300g/m² certain brand FR Cotton	107	14	7	610

06 The fabric is light and comfortable

As per trying experiment, the weight of garments affects the degree of comfort. Dupont® Nomex® IIIA garments are with high strength, good durability and fine breathability. And light fabric could be used to make more comfortable garments.

Dupont® Nomex® IIIA garments are with good breathability. It will promote air flow so that the energy of body could scatter fast.

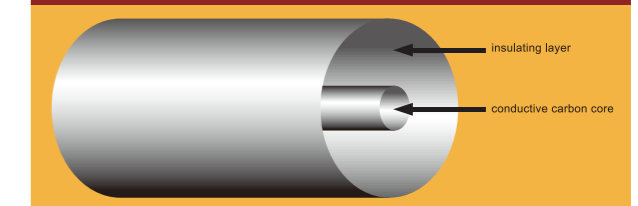
There is a special moisture-absorbing component which is widely used in sportswear used by top tennis sportsmen. This kind of component will absorb the moisture on the surface of skin and transfer it to larger surface areas by

fiber to make it evaporate fast, which helps users feel dry and comfortable.

07 Professional static control

Dupont® Nomex® IIIA fabric integrates P-140 - a kind of static-eliminated fiber with patent, which could reduce the static caused by the friction between two garments or garments and the surface of other objects (See Pic. 4). P-140 is used to reduce harmful static and make garments more comfortable to wear. Meanwhile, it also can reduce the accumulation of the static on the surface of body.

Pic.4 Dupont™ Nomex® IIIA fabric includes P-140 – a kind of high-performance static-eliminated fiber with patent.



08 Good protection under the condition of low temperature

Water can eliminate static by conducting electricity, so many of natural or synthetic fiber are anti-static by absorbing moist gas. But the natural fiber like wool, cotton and synthetic fiber will lose anti-static performance under low temperature.

However, Dupont® Nomex® IIIA fabric will keep fine anti-static performance even under the condition of low temperature. It is mainly because of P-140 fiber in Dupont® Nomex® IIIA fabric, which keeps the fabric anti-static even under the humidity of 20%. The excellent anti-static performance has been proved in Electric Charge Decay Test and in the process of wearing.

Chart2 The results of anti-static decay test

Fabric	#Washing Times	KV Acceptable Voltage	Time to achieve 10% initial acceptable voltage/seconds
150g/m² NOMEX® IIIA	0	3.95	0.01
	25	3.75	0.02
	50	3.45	0.01
	75	3.15	0.02
	100	3.10	0.01
100% FR Cotton	0	3.25	>10
	25	2.00	>10
	50	1.60	>10
100% Cotton	0	4.31	2.2
	25	2.50	>10
	50	2.33	>10
65% Cotton	0	4.90	4.3
	25	2.20	>10
	50	2.25	>10

According to US Test Standard 191A (Method 5931), to put the fiber between two paralleled electrodes. When 5KV charge passes, the fiber can hold at least 3KV. And the fiber needs to discharge until to achieve only 10% initial charge within 0.5 seconds when it touches the ground. The test is under 70F (21°C) and 20% RH.

The real case shows that it will produce enough static energy on the surface of body when taking off the outer wear. The spark produced in the process of static release is strong enough to light flammable steam or air mixture.

## Flight Suit (CWU-27/P)

**Material:** 150/200 g/m<sup>2</sup> (4.5/6.0 oz/yd<sup>2</sup>) Dupont® Nomex® IIIA / Aramid IIIA fabric

**Color:** Sage green, navy blue, royal blue, orange, black, khaki, red, etc.

**Description:** Inherently and permanently flame resistant

Do not melt, burn, drip or support combustion in air.

Front opening with two-way FR metal zipper

Gusseted back for convenient action

Adjustable cuffs and waist belt with Velcro fastener

Ankle opening by zipper to adjust width of leg

5\*10cm Velcro on left chest used to fasten name tag

8 FR zippered pockets: 2 slant chest pockets, 1 pen pocket (3 compartments) on left sleeve,

2 pockets on upper legs, 1 knife pocket on left leg, 2 pockets on lower legs

**Application:** Air force and aviation (to protect aircrew from any flash fires and its anti-static fiber is used to minimize electrostatic accumulation).



## Flight Jacket & Pants

**Material:** 150/200 g/m<sup>2</sup> (4.5/6.0 oz/yd<sup>2</sup>) Dupont® Nomex® IIIA / Aramid IIIA fabric

**Color:** Sage green, navy blue, royal blue, orange, black, khaki, red, etc.

**Description:** Inherently and permanently flame retardant

Do not melt, burn, drip or support combustion in air.

Front opening with two-way FR metal zipper

Gusseted back for convenient action

Adjustable cuffs and waist belt with Velcro fastener

Ankle opening by zipper to adjust width of leg

5\*10cm Velcro on left chest used to fasten name tag

8 FR zippered pockets: 2 slant chest pockets, 1 pen pocket (3 compartments) on left sleeve,

2 pockets on upper legs, 1 knife pocket on left leg, 2 pockets on lower legs

**Application:** Air force and aviation (to protect aircrew from any flash fires and its anti-static fiber is used to minimize electrostatic accumulation).



## Flight Gloves

**Material:** 150/200 g/m<sup>2</sup> (4.5/6 oz/yd<sup>2</sup>)

Dupont® Nomex® IIIA / Aramid IIIA fabric

**Color:** Sage green, navy blue, black, etc.

**Description:** Material: Goat skin leather, Nomex Knitting fabric

**Length:** 32 cm

**Net weight:** 90 gsm

**Available color:** Black, Beige and Olive green

**Application:** Air force and aviation (to protect aircrew from any flash fires and its anti-static fiber is used to minimize electrostatic accumulation).



## MA-1 Flight Jacket

**Material:** Outer Fabric: 100% Nylon, sage green

**Lining:** 100% Polyester, orange

**Inner shell:** Polyester Fiberfill, 150g

**Color:** Sage green, Black, Navy blue, etc.

**Description:** Fully reversible with rescue orange color inner shell

Nylon knitted collar, waistband and cuffs

#8 heavy duty metal zipper with reversible puller on front opening

Two slant insert pockets on hem and one pen pocket on left arm

**Application:** Aviation in cold weather, reversible with highly visible orange color for emergency.



## Tanker Suit

**Material:** 150/200 g/m<sup>2</sup> (4.5/6.0 oz/yd<sup>2</sup>)

Dupont<sup>®</sup> Nomex<sup>®</sup> IIIA / Aramid IIIA fabric

**Color:** Sage green

**Feature:** Two way full front FR metal zipper with puller

Two slash chest pockets fastened by Velcro

One pen pocket fastened by Velcro on left sleeve

Two pockets on upper legs

Adjustable cuffs, waist belt and leg opening with Velcro fastener

DRD (Drag Rescue Device) strap concealed by Velcro fastener on the back

Two side zippers and Velcro closure across back for easy access in emergency

Ranker holder on shoulders

Self-fabric reinforced elbows and rump

**Application:** Used as the protective clothing during tank driving.



## Nomex<sup>®</sup> IIIA Flame Retardant Clothing

### Nomex<sup>®</sup> IIIA Coverall

**Material.:** Nomex<sup>®</sup> IIIA / Aramid IIIA fabric

**Fabric Weight:**150g/m<sup>2</sup>(4.5oz/yd<sup>2</sup>), 200 g/m<sup>2</sup>(6oz/yd<sup>2</sup>)

**Color:** Red, Yellow, Orange, Royal Blue, Tan, Navy Blue, etc.

**Features:** Concealed two-way, heavy duty metal FR zippers and Metal buttons.

Nomex FR thread; Two chest pockets and two back pockets;

Elasticized waistband; 2.5cm/5cm FR Reflective tapes on arms and legs.

**Standard:** NFPA 2112, CE, ISO11612, EN 1149



## Nomex® IIIA Flame Retardant Clothing

### Nomex® IIIA Shirt and Pants

**Item No.:** NM-S/P150-1

**Material:** Nomex® IIIA / Aramid IIIA fabric

**Fabric weight:** 150g/m<sup>2</sup>(4.5oz/yd<sup>2</sup>), 200 g/m<sup>2</sup>(6oz/yd<sup>2</sup>)

**Color:** Orange, Royal blue, Navy blue, Red, Yellow, etc.

**Feature:** Inherently and permanently flame retardant

Anti-static, neither melts nor drips

Soft, comfort and easy to maintain

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without FR reflective tapes, YKK or FR metal zipper



### Nomex® IIIA Jacket and Pants

**Item No.:** NM-CT/P200-1

**Material:** Nomex® IIIA / Aramid IIIA fabric

**Fabric weight:** 200 g/m<sup>2</sup>(6oz/yd<sup>2</sup>)

**Color:** Orange, Royal blue, Navy blue, Red, Yellow, etc.

**Feature:** Inherently and permanently flame retardant

Anti-static, neither melts nor drips

Soft, comfort and easy to maintain

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without FR reflective tapes, YKK or FR metal zipper



## Nomex® Winter Jacket

### Nomex® IIIA Winter Jacket

**Item No.:** NM-WC200-1

**Material:** Nomex® IIIA for outshell and 3M Thinsulate for Innershell

**Fabric weight:** 200 g/m<sup>2</sup> (6 oz/yd<sup>2</sup>)

**Color:** Orange, Royal blue, Navy blue, Red, Yellow, etc.

**Feature:** Inherently and permanently flame retardant

Anti-static, neither melts nor drips

Soft, comfort and easy to maintain

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without FR reflective tapes, YKK or FR metal zipper



### Flame Resistant Raincoat

**Material:** 98%polyester 2%anti-static fiber, PU Coated

**Fabric Weight:** 235 g/m<sup>2</sup>

**Color:** Fluorescent Yellow/Navy

**Accessories:** FR Zipper, FR Thread ,with 5cm FR refelective tapes on waist, shoulder, sleeves

**Feature:** Flame resistant, Waterproof.





## Nomex® Balaclava

**Item No.:** NM-Hood-1

**Material:** 200 g/m<sup>2</sup> 100% Nomex

**Color:** White, Black

**Feature:** Inherently and permanently flame retardant

Anti-static, neither melts nor drips

Soft, comfort and easy to maintain

**Application:** Oil and Gas, Petroleum, Chemical, Military, Police, Rescue, etc.

**Remark:** Single layer or double layers



## Nomex® Knitted Neck Gaiter



**Item No.:** NM-Hood-2

**Material:** 200 g/m<sup>2</sup> 100% Nomex

**Color:** White, Black

**Feature:** Inherently and permanently flame retardant

Anti-static, neither melts nor drips

Soft, comfort and easy to maintain

**Application:** Oil and Gas, Petroleum, Chemical, Paint Military, Police, Rescue, etc.

**Remark:** Single layer or double layers

## FR Underwear

**Material:** Aramid and viscose blended

**Color:** White, Dark blue

**Feature:** Flame resistant, light, breathable and UV-protective

**Application:** Used together with flight suit



## FR Silk Underwear



**Material:** 100% silk

**Color:** White, Grey

**Feature:** Flame resistant, light, breathable and UV-protective

**Application:** Used together with Conductive Suit

## FR Soft Flame Retardant Clothing

FR Soft garments are the best choice for the environment where the clothes easily get dirty or torn, or for the fact that the budget is limited.

FR Soft treatment technique will not affect the feature of cotton fabric. Thus, FR Soft garments are soft and moisture-wicking and also keep anti-static in most of working environments. Its FR protective performance will last as long as the lifespan of common garments, that is, 50 times of washing and within 12 to 18 months. Meanwhile, since being flame retardant, they also can be used as welding clothes.

### 100% FR Cotton - Short Sleeves

**Item No.:** FRC-SC220-1

**Material:** 220g/m<sup>2</sup> FR Cotton 100%

**Color:** Orange, Royal blue, Navy blue, Red, etc.

**Feature:** Moisture-absorbing, breathable, comfortable and durable

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without reflective tapes



### 100% FR Cotton – coverall

**Item No.:** FRC-C330-1

**Material:** 330 g/m<sup>2</sup> FR 100% cotton

**Color:** Orange, Royal blue, Navy blue, Red, etc.

**Feature:** Moisture-absorbing, breathable, comfortable and durable

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without reflective tapes

**FR Cotton - Coverall**

Item No.: FRCN-C250-1

Material: Flame resistant cotton and nylon blended

Fabric weigh: 250g/m<sup>2</sup>

Color: Orange, Royal blue, Navy blue, Red, etc.

Feature: Moisture-absorbing, breathable, comfortable and durable

The cotton blended with nylon is with higher strength and wear-resistance

Application: Oil and Gas, Petroleum, Chemical, Paint, etc.

Remark: With or without reflective tapes



**FR Cotton - Heavy Coverall**

Item No.: FRCN-C305-1

Material: Flame resistant cotton and nylon blended

Fabric weigh: 305 g/m<sup>2</sup>

Color: Orange, Royal blue, Navy blue, Red, etc.

Feature: Moisture-absorbing, breathable, comfortable and durable

The cotton blended with nylon is with higher strength and wear-resistance

Application: Oil and Gas, Petroleum, Chemical, Paint, etc.

Remark: With or without reflective tapes

**FR Cotton/Polyester - Coverall**

Item No.: FRCVC-C220-1

Material: The cotton blended with polyester

Color: Orange, Royal blue, Navy blue, Red, etc.

Feature: Moisture-absorbing, breathable, comfortable and durable

The cotton blended with nylon is with higher strength and wear-resistance

Application: Oil and Gas, Petroleum, Chemical, Paint, etc.

Remark: With or without reflective tapes



## FR Soft Flame Retardant Clothing

### FR Cotton/Polyester - Jacket and Pants

**Item No.:** FRCN-CT/P310-1

**Material:** 310 g/m<sup>2</sup> FR cotton and polyester blended

**Color:** Orange, Royal blue, Navy blue, Red, etc.

**Feature:**

Moisture-absorbing, breathable, comfortable and durable. The cotton blended with polyester is with higher strength and wear-resistance

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without reflective tapes



### FR Cotton/Nylon - Jacket and Pants

**Item No.:** FRCN-J/P260-1

**Material:** 260 g/m<sup>2</sup> 88% Cotton and 12% Nylon

**ATPV:** 8 cal/cm<sup>2</sup>

**Color:** Grey, Navy blue, Orange, Royal blue, Red, Yellow, etc.

**Feature:** Moisture-absorbing, breathable, comfortable and durable

**Application:** Oil and Gas, Petroleum, Chemical, Paint, etc.

**Remark:** With or without reflective tapes

## Aluminized Clothing



### Mirror Suit 3H

**Material:** Outer shell: 500 g/m<sup>2</sup> aluminized glass fiber base material

**Feature:**

Can withstand the degree of 1200 °C

Can stand up to more than 95 seconds radiant heat as per EN ISO 6942 test

Can resist radiant well

The aluminized material is not easily peeled from the base material

**Application:**

The industrial environment where workers contact heat indirectly

**Standard:** EN ISO 11612-2008, NF EN407



### Mirror Suit 4HV

**Material:** 580g/m<sup>2</sup> aluminized Viscose base material

**Feature:**

Can withstand the degree of 1600°C

Can resist thermal contact and hot melt metal splash

The aluminized material is not easily peeled from the base material

**Application:**

Steel and aluminum factory or other heat dangerous industrial environment

**Standard:** EN ISO 11612-2008, NF EN407

## Aluminized Clothing

### Mirror Suit 4HK

**Material:** 515 g/m<sup>2</sup> aluminized with Kevlar base material

**Feature:**

Can withstand the degree of 1200 °C

Can resist thermal contact and hot melt metal splash

More wear-resistant and durable usage

The aluminized material is not easily peeled from the base material

**Application:**

Steel and aluminum factory or other heat dangerous industrial environment

**Standard:**EN ISO 11612-2008, NF EN407



### Mirror Suit 5H

710 g/m<sup>2</sup> FR woven fabric substrate with aluminum membrane

**Feature:**

Withstand high-heat up to 1200 °C

Superior protective performance on high pressure and moisture vapor, superheated vapor and high temperature liquid

The aluminized material is not easily peeled from the base material

**Application:**

Proximity fire rescue

Emergency rescue

Not suitable for entering or passing through fire ground

**Standard:** EN ISO 11612-2008, NF EN407

**Accessory:** Self-contained breathing apparatus (SCBA) CG60415210

### Mirror Suit 6H

**Material:** Outer shell: 770 g/m<sup>2</sup> FR woven fabric substrate with aluminum membrane

Thermal lining: Meta/para-aramid felt quilted to 50% meta-aramid / 50% FR viscose woven fabric

**Feature:**

Withstand high-heat up to 1600 °C

The shield is made of polycarbonate with gold coating (24 carat), which reflects electromagnetic radiation of more than 1000°C

The aluminized material is not easily peeled from the base material

**Application:**

Proximity fire rescue

Emergency rescue

Not suitable for entering or passing through fire ground

**Standard:**EN ISO 11612-2008, NF EN407, GA 634-2015

**Accessory:**Self-contained breathing apparatus (SCBA) CG60415210



### Emergency Evacuation Clothing

**Material:** 3 layers laminated aluminized fabric

**Feature:** Soft and comfortable

Light weight to carry, only 0.6 KG and easy to don and doff

Special mirror reflective technic, suitable for proximity fire rescue under industrial radiant heat up to 900 °C for 15 minutes

**Application:**

Proximity fire rescue

Searching after fire accident and do cutting operation

Fire extinguishing in narrow space like tunnel, underground tunnel, etc.

Rescue in high temperature

**Standard:**

EN ISO 11612-2008

Fabric Property	Value	Testing Method
Breaking Force (warp)	≥1050N	ISO 1421-1
Breaking Force (weft)	≥800N	ISO 1421-1
Tearing Force (warp)	≥20N	ISO 4674-2
Tearing Force (weft)	≥30N	ISO 4672-2
Flame retardation	Afterglow≤2S	ISO 15025
Flame retardation	Afterflame≤2S	ISO 15025

## Aluminized Clothing

### Mirror Apron

Item No.: MF-Apron

Material: Aluminized fabric

Feature:

High protection to heat and radiant heat

Effectively prevents molten metal splash

Application:

Furnace operation, metallurgy and foundry



### Mirror Sleeves

Item No.: MF-Sleeve

Material: Aluminized fabric

Feature:

High protection to heat and radiant heat

Effectively prevents molten metal splash

The two sleeves are connected around the neck with elastic, Band for easier operation.

Application:

Furnace operation, metallurgy and foundry

### Mirror Leggings

Item NO.: MF-Legging

Material: Aluminized fabric

Feature:

High protection to heat and radiant heat

Effectively prevents molten metal splash

Adjustable Velcro closure on the back helps to wear easier Extended over-the-knee is also available.

Application:

Furnace operation, metallurgy and foundry



## Aluminized Clothing

### Mirror Hood

Item NO.: MF-Hood-1

Material.: Aluminized fabric and professional metallurgical face shield.

Feature:

High protection to heat and radiant heat

Effectively prevents molten metal splash

Application:

Furnace operation, metallurgy and foundry



### Mirror Anti-Skid Metal Splash Gloves

Item NO.: BP-SB-FHGRST

Material:

Aluminized fabric on the back and cow leather materials on the palm

Feature: Aluminized side can withstand 1600 °C

Anti-skid palm can withstand 200-300 °C

Application:

Furnace operation, metallurgy and foundry

## Metaltech Clothing



Metaltech garment is an innovative product to prevent injuries from the molten metal splash. It is inherently flame-retardant and the protection can not be washed out or worn away. Metaltech, with its special blend of fibers, can protect skins from metal or iron splash. Metaltech garments apply in welding, smelting, casting and molten metal splash or radiant heat industrial condition.

### Metaltech Clothing

**Item NO.:** MJ-J/P350

**Fabric:** Woven Fabric, lenzing FR blended (Viscose FR Blended)

**Color:** Navy Blue

**Weight:** 350gsm

**Function:** Clothing to protect from heat and flame, molten aluminum splash, and molten iron splash

**Standard:** Pass EN ISO11612:2015 Protective clothing, D3 E3 testing.



## Disposable hooded protective coverall



**Model No.:** CG500B/CG501B

**Material:** Non-woven fabric with microporous laminate  
65±2gsm<sup>2</sup>/55±2 gsm<sup>2</sup>

**Color:** white

**Standards:** EN ISO 13982-1:2004+A1:2010 (Type 5), EN 13034:2005+A1:2009 (Type6), EN 14325:2018, EN 14126: 2003 (Type 5-B & 6-B), EN 1149-5:2018, EN 1073-2: 2002

**Certificate:** CE, GB/T 29511-2013

**Product Features:**

1. Excellent durability and protection;
2. Protects against a variety of liquid spillages and solid chemicals, such as asbestos, glass, fiber, lead dust and paint, etc;
3. Anti-static properties;
4. Breathable, lightweight and flexible material for exceptional wearer comfort;
5. One-piece coverall with hood, zipper at front opening covered by flap, elasticated cuffs, ankles, hood and waist;
6. Easy to wear, take off, and easy movement.

**Application:**

1. Protect against slight splashes of a small amount of harmful chemical liquids and harmful dry dust;
2. Protect from spraying operation;
3. Protect from cleaning operations, nuclear radiation resistant particles and dust;
4. Applicable for food processing, medicine and health, electronic processing,

**Standard:**

**Optional:**



Disposable Boot Cover  
Model: CG-BT500



Anti-slip Disposable  
Boot Model: CG-BT501  
Model: CG-ST500



Disposable Shoe Cover  
Model: CG-ST500



Anti-slip Disposable Shoe Cover  
Model: CG-ST501  
Model: CG-ST500



## Disposable hooded protective coverall

**Model:** CG400B

**Material:** Non-woven fabric with microporous laminate, 65g/m<sup>2</sup>±2

**Product Features:**

- 1.The material is comfort and durable;
- 2.Permeable to both air and water vapour, yet repels water-based liquids and aerosols;
- 3.Anti-static properties;
- 4.Protection against infectious diseases;
- 5.Breathable, lightweight and flexible material for exceptional wearer comfort;
- 6.One-piece coverall with hood, zipper at front opening covered by flap, elasticated cuffs, ankles, hood and waist, heat sealed seams with tape

**Application:**

It provides barrier and protection from hazardous substances or radioactive particles in the nuclear industry, pharmaceutical manufacturing or in research and biosecurity laboratories.

**Standards:**



**Optional:**



Disposable Boot Cover with tapes  
Model: CG-BT400



Antislip Disposal Boot Cover with tapes  
Model: CG-BT401



Disposable Shoe Cover with tapes  
Model: CG-ST400



Antislip Disposable Boot Cover with tapes  
Model: CG-ST401

## Chemical Protection clothing

**Model No.:** CG300B

**Material:** Microporous film coated non-woven fabric, 89g/m<sup>2</sup>±2

**Color:** Yellow

**Product Features:**

Made with microporous film coated non-woven material.

- 1.Fabric is strong, durable and lightweight.
- 2.Storm flap covers zipper which can be sealed by the wearer with adhesive strip to prevent intrusion at zipper.
- 3.Elastic opening for tighter fit at hood, wrist and ankle.
- 4.Taped seams provide strong chemical resistance against heavy liquid splashes.
- 5.Protect against most organic and inorganic chemicals and biohazardous substances.
- 6.Anti-static properties, according with EN 1149 standards.

**Application:**

- 1.Protects from harmful dry particles;
- 2.Protects from chemical substance, acid and alkali chemicals treatment;
- 3.Protects from hazardous substances or radioactive particles in the nuclear industry

**Standards:**EN 14605, EN 13982, EN 13034, EN 1149, EN 1073-2



## Disposable hooded protective coverall

**Product Name:** Dupont™ Tyvek® 500 Xpert

**Material:** Tyvek® 41g/m<sup>2</sup>

**Color:** White

**Package:** 25pc/box

**Standards:** EN ISO 13982-1:2004+A1:2010 (Type 5), EN 13034:2005+A1:2009 (Type 6), EN 14126:2003 (Type 5-B, 6-B), EN 1149-5:2008

**Certificate:** CE

**Package:**



## Disposable hooded protective coverall

**Product Name:** Dupont™ Tyvek® 600 Plus

**Material:** Tyvek® 41g/m<sup>2</sup>

**Color:** White, blue tape sealed

**Package:** 100pc/box

**Standards:** EN 14605:2005+A1:2009 (Type 4); EN ISO 13982-1:2004+A1:2010 (Type 5), EN 13034:2005 +A1:2009 (Type 6), EN 14126:2003, EN 1149-5:2008

**Certificate:** CE

**Package:**





## Chemical Protective Apron with Back Wear

Optional:



Chemical Protective  
Boot Cover  
Model: CG-BT300



Antislip Chemical  
Protective Boot Cover  
Model: CG-BT301



Chemical Protective  
Shoe Cover  
Model: CG-ST300



Anti-slip Chemical  
Protective Boot Cover  
Model: CG-ST301

## Air Tight Chemical Protective Clothing

**Model No.:** TemPro-10000

**Color:** Hi-vis Green

**Product Features:**

1. Fully enclosed air tight protective clothing with protruding back to accommodate self-contained air breathing apparatus;
2. Detachable double layer gloves;
3. Velcro double-layer placket zipper, the zipper is covered with the zipper placket to avoid leakage at the zipper;
4. Double exhaust valve, double-layer adhesive strip, socks, and placket with trousers
5. The widened panel is adopted, and the widened panel is of 3-layer structure
6. Positive pressure air tightness test completed (ASTMF 1052)

**Application:**

It is used to protect from dangerous chemical goods handling, chemical accident emergency rescue etc.

**Standards:**

Type 1-B, Type 2-B, Type 3-B, Type 4-B. Type 5-B, EN 14126, EN 1073-2, EN 1149-5



## Gas Tight Flame Retardant Chemical Protective Clothing

**Model No.:** TemPro-TP602

**Product Features:**

1. Class A gas tight fully enclosed protective clothing
2. Suitable for unknown hazardous environment and toxic environment that can cause immediate death
3. One piece design, equipped with two one-way exhaust valves to prevent liquid splashing
4. Excellent chemical penetration resistance from more than 180 kinds of dangerous chemicals up to 30 minutes
5. Front entry design, users can take off their clothes in case of emergency
6. The back has a raised backpack, which is compatible with SCBA cylinders
7. Double layer glove system, the material of socks and boots is consistent with the theme material of clothing

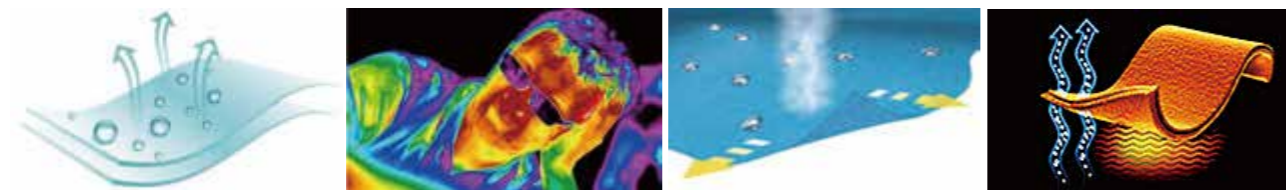
**Color:** Orange

**Application:**

1. The airtight flame-retardant and chemical protective clothing can provide double protection of chemicals and explosion escape;
2. Effective protection of hazardous chemicals, toxic chemicals and chemical reagents penetration

**Standards:** Type 1-B, Type 2-B, Type 3-B, Type 4-B. Type 5-B, EN 14126, EN 1073-2, EN 1149-5





**Brand:** Stormwalker®

**Product:** Agate blue detachable jacket

**Item:** STW-J-P100

**Color:** Agate blue

**Overall structure:** The shell of the lightweight waterproof and breathable jacket and the detachable inner liner of Stormwalker® high-efficiency thermal insulation flake are used.

**Material:** Outer layer-polyester TPU coated fabric; Inner liner-made of Stormwalker® high-efficiency thermal insulation flake.

**Description:** 1. The outer layer is made of polyester TPU coated fabric, which has good wear resistance, waterproof and breathable performance.

2. The inner liner Stormwalker® high-efficiency thermal insulation flake is prepared from special aerospace fibers, and the thermal insulation effect is better than the high-end thermal insulation flake on the market.

3. The whole body of the garment is treated with glue, and the placket is a waterproof zipper with multiple protections to provide better waterproof performance.

**Application:** Daily life and also suitable for outdoor sports such as heavy-duty hiking, camping, and crossing Agate blue color matching detachable jacket



**Item:** STW-J-P253  
Agate blue color matching detachable jacket



**Item:** STW-J-P252  
Graphene far-infrared thermal storage jacket

## Stormwalker® Outdoor Workwear

**Brand:** Stormwalker®

**Product:** Warm lightweight and comfortable vest

**Color:** Grey, Agate blue and grey

**Overall structure:** Warm and thermal storage flakes combined with waterproof and breathable fabrics.

**Material:** Outer layer-polyester TPU coated fabric;

Inner liner Stormwalker® high-efficiency thermal insulation flake.

**Description:** 1. The outer layer is made of polyester brushed TPU coated fabric, which has good wear resistance and waterproof and breathable performance.

2. The inner Stormwalker® high-efficiency thermal insulation flake is prepared from special aerospace fibers, and its thermal insulation effect is better than that of high-end thermal insulation flake on the market.

3. Irregular quilting adds more fashion, the color matching design is stylish and beautiful, and the cuffs are tightened for more windproof.



Item: STW-V-P180



Item: STW-V-P250

## Cooling Vest

**Item No.:** TemPro-CV-02/03, Ecool-OH-A

**Material:** Outer shell: Functional fiber fabric

Inner layer: Waterproof breathable material

**Color:** Navy blue

**Feature:**

Cooling method that mimics the evaporation of body sweat

Unique high-tech cool 3-layer structure, better water locking performance

Physical water absorption locking mechanism and reusable

Upper body design to avoid intestinal irritation due to low temperature

Durable and machine washable. No spin dehydration, dryer drying

Easy to use, only need a bottle of water

Keep cooling for 3-8 hours

**Application:** Hot weather or heated environment



**Item No.:** TemPro-CV-01

**Material:** Polyester/cotton fabric

**Color:** Blue

**Feature:** Cool storage cooling method

The special structure and design adopted in the cold storage bag ensure the bag stiff and not deformed, and make the cold agent not flow or fall.

With up to 4 recyclable hard gel packs.

The shoulder and waist are designed with Velcro, which can be adjusted.

Use after refrigerating and keep cooling no less than 3 hours

**Application:** Hot weather or heated environment

## High-Visibility Clothing



### High-Visibility Shirt and Pants

**Material:** 100% Cotton twill  
**Fabric weight:** 190 g/m<sup>2</sup>  
**Color:** Orange / Navy blue, Yellow / Navy blue  
**Feature:** UPF50+, 3M reflective tapes  
**Standard:** AS/NZS 1906.4:2010, UPF50+  
AS/NZS 40602.1:2011 Australian standards Day or Night Use

### High-Visibility Vest

**Material:** 100% polyester low elastic fabric  
**Color:** Orange, Yellow, Blue, etc.  
**Feature:** Highly visible, comfortable and moisture-absorbing  
**Application:** Road workers, police, emergency rescue, etc.



### High-Visibility Rainwear

**Material:** 100% Polyester Oxford waterproof PU  
**Feature:** 5cm reflective tape, All seam taped to prevent heavy rain, Detachable hood

### Raincoat

**Materials:** Waterproof complex coating fabric  
**Color:** Navy blue, Yellow, etc.  
**Feature:** Waterproof  
**Application:** Rainy weather



## Uniform

### Summer Clothing

**Item:** Short-sleeve Shirt & Pants  
**Material:** Cotton/Polyester  
**Color:** Blue, Khaki, Grey, Navy blue, etc.  
**Feature:** Durable and washing-resistant  
**Application:** Working environment



### Summer Clothing

**Item:** Short-sleeve Shirt & Pants  
**Material:** Cotton/Polyester  
**Color:** Blue, Khaki, Grey, Navy blue, etc.  
**Feature:** Durable and washing-resistant  
**Application:** Working environment



### Spring/Autumn Clothing

**Item:** Long-sleeve Shirt & Pants  
**Material:** Cotton/Polyester  
**Color:** Blue, Khaki, Grey, Navy blue, etc.  
**Feature:** Durable and washing-resistant  
**Application:** Working environment