Personal protective solutions for chemical manufacturing industry applications
Because everyone has someone depending on them to get home safely

DuPont is more focused than ever on providing innovative protection solutions and expert technical support tailored to meet the specific needs of workers in chemical manufacturing industries around the world.

Because their safety is our business, workers in the chemical manufacturing industries can rely on the world-class people, products and innovation that have made DuPont a trusted partner in personal protection.

With a wide range of industry-leading personal protective equipment (PPE) solutions and a global network of PPE specialists, technical experts and manufacturing, DuPont is uniquely suited to provide the protection and comfort every worker deserves to face a range of workplace hazards with confidence.

Our brands

Nomex®
DuPont” Nomex® offers a tested and proven portfolio of protective solutions that continues to meet or exceed global standards for heat, flame and electric arc flash protection.*

Kevlar®
Gloves made with DuPont” Kevlar® offer industry-leading cut protection, built-in heat and flame resistance and electric arc flash protection, while providing the dexterity and comfort workers want.

Tyvek®
DuPont” Tyvek® garments provide workers with superior protection from small-sized hazardous particles, including lead, asbestos and mold. And because protection is built into the fabric itself, there are no films or laminates to abrade or wear away.

Tychem®
DuPont” Tychem® garments deliver durable protection and offer strong permeation barrier against a wide range of chemicals. Together with Tychem® gloves and tape, they create the Tychem® Trusted Chemical System™ for complete protection.

*For high arc-rated solutions, visit dpp.dupont.com for available Nomex® layering systems.
Workers in chemical manufacturing industries face a variety of on-the-job hazards, including flash fire, sharp edges, punctures and exposure to hazardous chemicals, dust and solvents—to name just a few.

Providing workers with the protection they need for the hazards they face is a major responsibility. DuPont Personal Protection has the in-depth knowledge, unparalleled expertise and broad portfolio of PPE solutions to help keep your workers safe.

DuPont PPE solutions are designed to meet or exceed global standards for protection and performance, including National Fire Protection Association (NFPA), ASTM International, Canadian General Standards Board (CGSB), American National Standards Institute (ANSI), International Organization for Standardization (ISO) and China GB National Standards.

To help you in the decision-making process, from risk assessment through implementation, we recommend using the 4P methodology:

**Predict**
- Analyze all activities required for each part of your operation.
- Identify all potential risks associated with each activity.
- Understand severity and likelihood of risks.

**Provide**
- Document PPE selected to address each residual risk.
- Build awareness with workers about their specific risks and selected PPE.
- Train workers on correct use of PPE.

**Prevent**
- Evaluate ways to eliminate hazards.
- Make substitutions when possible.
- Reduce residual risks with engineering processes or operational changes.

**Protect**
- Select appropriate PPE to address residual risks.
- Ensure PPE meets performance and comfort requirements in the work environment.
- Remember, PPE is the last line of defense.
Chemical manufacturing—creating a variety of products means a variety of hazards

There are five main chemical manufacturing subsegments—commodities, agrochemical, pharmaceutical, specialty and consumer. Workers in each of these subsegments manufacture a multitude of different products that are critical to our daily lives. While doing this critical work, these essential workers are exposed to a variety of hazards ranging from flash fire and hazardous chemicals, dust and solvents to sharp edges and punctures. As a result, health, safety and environment (HSE) managers have many tasks to balance.

DuPont offers a broad range of comprehensive, one-stop PPE solutions to address these hazards and help simplify the PPE selection process, including: Nomex® garments for flash fire hazards; Tyvek® garments for protection against fine particle hazards and low level liquid splashes; Tychem® garments, gloves and tape for protection against concentrated chemicals; and gloves made with Kevlar® for cut and multi-hazard protection.

DuPont™ SafeSPEC™, our powerful web-based tool, has a full permeation test results database for Tychem® fabrics and allows you to search by hazard to help find the right protection. DuPont™ Thermo-Man®, the world’s most advanced life-sized thermal burn injury evaluation unit, is used in our technical centers around the world to evaluate the heat and flame resistance that FR garments can deliver in a simulated flash fire.

As an industry leader in chemical manufacturing, DuPont also has a large team of experts around the globe who are available to work side by side with HSE managers to help them navigate the available PPE solutions for each site based on the specific hazards workers face.
Tasks
Perform analytical testing on all types of manufacturing raw materials, products and intermediate streams

Hazards
Chemical exposures
Flash fire
Cut hazards requiring either cut level A2 or A3 protection OR cut level A2 protection with thermal level 4 protection.

Protection for every task

DuPont products and PPE solutions are identified by our licensees' branded names.

For a full list of PPE solutions, visit SafeSPEC™.

Available PPE options
Flame-resistant (FR) garments

Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

Nomex® FR/CP lab coat
Made of innovative Westex® ShieldCXP™ fabric with Nomex® Essential fibers, this lightweight, breathable flame-resistant/chemical-protective (FR/CP) lab coat helps provide protection against multiple hazards and is comfortable to wear. It won’t ignite during short-duration thermal incidents or emergency exposure to flame and repels small amounts of liquid chemicals. This innovative lab coat offers 5.6 cal/cm² arc thermal performance value (ATPV) protection.

Nomex® FR face mask made with Nomex®
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. Centers for Disease Control and Prevention (CDC) for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

NOTE: Certifications listed here are for Nomex® Comfort fabric; consult with garment manufacturer for garment certifications.

NOTE: Certifications listed here are for Nomex® Essential fabric; consult with garment manufacturer for garment certifications.

NOTE: Please consult with fabric and garment manufacturer for certifications.

NOTE: FR face masks are for use while social distancing and may be used for other tasks identified by a site-based risk assessment.
Non-FR/chemical-protective garments

Tychem® 2000
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

Tychem® 4000
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 100 chemical challenges.

Tychem® 5000 C3275
This knee-length apron with attached sleeves offers enhanced frontal protection. It is made with Tychem® 5000 fabric, a multi-layer film barrier laminated to a durable polypropylene substrate. Strong and durable, Tychem® 5000 offers an effective barrier to a broad range of (>145) chemicals.

Tychem® 6000
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Chemical-resistant (CR) gloves

Tychem® NT470
These unlined, 19mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Laboratory

Tasks
Perform analytical testing on all types of manufacturing raw materials, products and intermediate streams.

Hazard
Chemical exposures

Flash fire
Cut hazards requiring either cut level A2 or A3 protection OR cut level A2 protection with thermal level 4 protection.

Lab No. 225

Thermal gloves

Superior Glove® Dexterity® SKG/PXNE
Made with a blend of Kevlar® and Protex® yarns, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm² ATPV protection.

Ironclad Heatworx® Heavy Duty HW6X
These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

Cut-resistant gloves

Superior Glove® Dexterity® S18KGPU
Seamless knit glove, yellow 18-gauge Kevlar® engineered blend shell, gray polyurethane palm dip coating, Knit cuff.

PIP G-Tek® KEV™ 09-K1250
This glove is a Kevlar® and elastane seamless knit with polyurethane coated flat grip on palm and fingers. Knit wrist.

Tychem® BT730
These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a "second-skin" feel, anatomical shape and rough surface, Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in sour or greasy environments.

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

Cat II EN 388:2016
Type A EN ISO 374-5:2016

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For a full list of PPE solutions, visit SafeSPEC™.
BACTERIA & FUNGI

Level 4 protection

Cut level A2 and thermal hazards requiring chemical exposures

Particle exposures

Flash fire

Hazards

Loading/unloading bulk raw materials and products

Tasks

Transfer and monitor material transfers

Chemical-resistant/flame-resistant (CR/FR) garments

Tychem® 4000

Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Tychem® 6000

Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Tychem® 10000

Tychem® 10000 is an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive liquids and solids chemicals.

Chemical-resistant (CR) gloves

Tychem® PV350

Extremely durable, these 55-mil polyvinyl chloride (PVC) gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Loading/unloading rail cars or trucks

Tasks

Loading/unloading bulk raw materials and products

Transfer and monitor material transfers

Hazard risks assessment

Hazards

Particle exposures

Chemical exposures

Cut hazards requiring cut level A2 and thermal level 4 protection

Non-FR/chemical-protective garments

Tychem® 2000

Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

Tychem® 6000

Tychem® 6000 FR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

Tychem® 4000 FR

Tychem® 6000 FR sty1PV98T and TP99WT are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Chemical-resistant (CR) gloves

Tychem® PV350

Extremely durable, these 55-mil polyvinyl chloride (PVC) gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

For a full list of PPE solutions, visit SafeSPEC™.
Loading/unloading rail cars or trucks

Tasks
Loading/unloading bulk raw materials and products
Transfer and monitor material transfers

Hazards
Flash fire
Particle exposures
Chemical exposures
Cut hazards requiring cut level A2 and thermal level 4 protection

For a full list of PPE solutions, visit SafeSPEC™

Packaging operations

Available PPE options
Flame-resistant (FR) garments

Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

- Type A
- Type B
- Type C
- Type D

NOTE: Certifications listed here are for Nomex® Comfort fabric; consult with garment manufacturer for garment certifications.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

- Type A
- Type B
- Type C
- Type D

NOTE: Certifications listed here are for Nomex® Essential fabric; consult with garment manufacturer for garment certifications.

FR face mask made with Nomex™
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

Tyvek® 400
Tyvek® 400 garments are composed of flashspun high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 1 micron in size). Protection is built into the fabric itself; there are no films or laminates to abrade or wear away.

Tyvek® 800
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 1 micron in size).

For a full list of PPE solutions, visit SafeSPEC™

Tychem® NT470
These unlined, 18-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

- EN 388:2016 3X43E
- EN ISO 374-5:2016 3X43E
- CAT III

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

- EN 388:2016 3X43E
- EN ISO 374-5:2016 3X43E
- CAT III

Tychem® BT370
These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a “second-skin” feel, anatomical shape and rough surface, Tychem® BT370 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

- EN 388:2016 3X43E
- EN ISO 374-5:2016 3X43E
- CAT III

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic chemicals with the strength and durability of Tyvek®. The coveralls inorganic chemicals with the strength and durability of Tyvek®. The coveralls protect the fabric itself; there are no films or laminates to abrade or wear away.

- EN 388:2016 3X43E
- EN ISO 374-5:2016 3X43E
- CAT III

Tychem® DX7000
These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

- EN 388:2016 3X43E
- EN 407 3X43E
- CAT III

Superior Gloves* Dexterity™ SKG/PXNE
Made with a blend of Kevlar® and Protek® nylon, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm² ATPV protection.

- ANSI A2 Cut
- Arc flash level 3
- EN 388 3X43E
- EN 407 3X43E

Ironclad Heatworx® Heavy Duty HW6X
These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

- ANSI A2 Cut
- Arc flash level 3
- EN 388 3X43E
- EN 407 3X43E

NOTE:
*FR face masks are for use while social distancing and may be used for other tasks identified by a site hazard risk assessment.
Non-FR/chemical-protective garments

Tychem® 2000
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

Tychem® 4000
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Tychem® 6000
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Tychem® 10000
Tychem® 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

Chemical-resistant/flame-resistant (CR/FR) garments

Tychem® 2000 SFR
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

Tychem® 6000 FR
Tychem® 6000 FR styles TP98T and TP99T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Non-FR/chemical-protective garments

Tychem® PV350
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Tychem® NT470
These unrivaled, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Tychem® BT730
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

For a full list of PPE solutions, visit SafeSPEC™.

Chemical-resistant (CR) gloves

Tychem® PV350

Tychem® NT470

Tychem® NP570 CT

Tychem® BT730

Packaging operations

Tasks
Collection of intermediates and products into various size containers other than tanks

Hazards
Chemical exposures
Particle exposures
Flash fire

For a full list of PPE solutions, visit SafeSPEC™.

Chemical-resistant/flame-resistant (CR/FR) garments

For a full list of PPE solutions, visit SafeSPEC™.
Available PPE options

Flame-resistant (FR) garments
Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

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NOTE: Certifications listed here are for Nomex® Comfort fabric; consult with garment manufacturer for garment certifications.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

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NOTE: Certifications listed here are for Nomex® Essential fabric; consult with garment manufacturer for garment certifications.

FR face mask made with Nomex®
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

NOTE: FR face masks are for use while social distancing and may be used for other tasks identified by a site hazard risk assessment.

Particle garments
Tyvek® 400
Tyvek® 400 garments are composed of flash spun high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 10 micron in size). Protection is built into the fabric itself; there are no films or laminates to abrade or wear away.

Tyvek® 800
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 10 micron in size).

Tyvek® 4000
Tyvek® 4000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 4000 offers permeation barrier protection for at least 30 minutes against more than 180 chemical challenges.

Non-FR/chemical-protective garments
Tychem® 2000
Tychem® 2000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Tychem® 6000
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Tychem® 6000 FR
Tychem® 6000 FR styles TP198T and TP199T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Chemical-resistant (CR) gloves
Tychem® PV350
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.
Tychem® NT470
These unlined, 18-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bouncy finish grip makes working in humid environments easier.

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Tychem® BT730
These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a “second-skin” feel, anatomical shape and rough surface, Tychem® BT730 provides ANSI level A2 and thermal protection in critical areas.

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

Superior Glove® Dexterity® SKG/PXNE
Made with a blend of Kevlar® and Protex® yarns, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm² ATPV protection.

Ironclad Heatworx® Heavy Duty HW6X
These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

For a full list of PPE solutions, visit SafeSPEC™

For a full list of PPE solutions, visit SafeSPEC™
Raw material/process sampling

Tasks
- Collection of raw material, process and other samples (closed or open)

Hazards
- Flash fire
- Chemical exposures
- Particle exposures

Chemical-resistant/flame-resistant (CR/FR) garments

**Tychem® 2000 SFR**
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

**Tychem® 6000 FR**
Tychem® 6000 FR styles TP98T and TP99T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Non-FR/chemical-protective garments

**Tychem® 2000**
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

**Tychem® 4000**
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

**Tychem® 6000**
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

**Tychem® 10000**
Tychem® 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

**Tychem® 2000 Tape**
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

Chemical-resistant (CR) gloves

**Tychem® PV350**
Extremely durable, these 35-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

**Tychem® NT470**
These unlined, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

**Tychem® NP530**
Tychem® NP530 gloves are resistant to a range of chemicals. Neoprene over natural rubber construction enhances dexterity and reduces hand fatigue. The cotton flock lining increases comfort and the embossed grip encourages a “second-skin” feel, anatomical shape and rough surface. Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

**Tychem® NT470 Tape**
Tychem® NT470 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

*Tychem® gloves and tape should not be used around heat, open flame, sparks or in potentially flammable environments. For professional use only.*
Available PPE options

**Flame-resistant (FR) garments**

**Nomex® Comfort**
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

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**Nomex® Essential**
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

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**FR face mask made with Nomex®**
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

**Particle garments**

**Tyvek® 400**
Tyvek® 400 garments are composed of flashspun high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 1 micron in size). Protection is built into the fabric itself; there are no films or laminates to abrade or wear away.

**Tyvek® 800**
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 15 micron in size).

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<th>Type 5-B</th>
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**Non-FR/chemical-protective garments**

**Tychem® 2000**
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

**Chemical-resistant (CR) gloves**

**Tychem® PV350**
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

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**Reactor operations**

Tasks
Open and closed charging of raw materials into reaction equipment

Hazards
Chemical exposures (powder and liquid)
Particle exposures
Flash fire
Pressurized equipment
Cut hazards requiring cut level A2 and thermal level 3 protection

**Chemical-resistant/fire-resistant (CR/FR) garments**

**Tychem® 4000**
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

**Tychem® 6000**
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

**Tychem® 10000**
Tychem® 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

**Tychem® 2000 SFR**
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

**Tychem® 6000 FR**
Tychem® 6000 FR styles TP198T and TP199T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.
Tychem® NT470
These unlined, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The silicone finish grip makes putting on and removing gloves easier.

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Tychem® BT730
These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a “second-skin” feel, anatomical shape and rough surface, Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic chemicals with the strength and durability of Tyvek®. The tape’s elasticity enables tight adhesion to help prevent leaks. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

*Tychem® gloves and tape should not be used around heat, open flame, sparks or in potentially flammable environments. For professional use only.

Available PPE options
Flame-resistant (FR) garments

Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

FR face mask made with Nomex™
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

*FR face masks are for use while social distancing and may be used for other tasks identified by a site hazard risk assessment.

Particle garments
Tyvek® 400
Tyvek® 400 garments are composed of flash-resistant high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 10 micron in size). Protection is built into the fabric itself; there are no films or laminates to abrade or wear away.

Tyvek® 800
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 10 micron in size).

For a full list of PPE solutions, visit SafeSPEC™
For a full list of PPE solutions, visit SafeSPEC™
Non-FR/chemical-protective garments

Tychem® 2000
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

Tychem® 4000
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Tychem® 6000
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Tychem® ‘10000
Tychem® ‘10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® ‘10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

Tychem® 2000 SFR
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

Tychem® 6000 FR
Tychem® 6000 FR styles TP98T and TP99T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Chemical-resistant/flame-resistant (CR/FR) garments

Tychem® PV530
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Tychem® NT470
These unlined, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

Tychem® NP530
Tychem® NP530 gloves are resistant to a range of chemicals. Neoprene over natural rubber construction enhances dexterity and reduces hand fatigue. The cotton flock lining increases comfort and the embossed grip encourages a “second-skin” feel, anatomical shape and rough surface. Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

For a full list of PPE solutions, visit SafeSPEC™.

Confined space entry

Tasks
Entering tanks, vessels or pits that may contain hazardous atmospheres and other hazards to perform work

Hazards
Chemical exposures
Particle exposures
Flash fire

Chemical-resistant (CR) gloves

Tychem® PV530
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Tychem® NT470
These unlined, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

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For a full list of PPE solutions, visit SafeSPEC™.

Confined space entry

Tasks
Entering tanks, vessels or pits that may contain hazardous atmospheres and other hazards to perform work

Hazards
Chemical exposures
Particle exposures
Flash fire

Chemical-resistant (CR) gloves

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Confined space entry

Tasks
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Particle exposures
Flash fire

Chemical-resistant (CR) gloves

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Tychem® NP530
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Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

For a full list of PPE solutions, visit SafeSPEC™.

Confined space entry

Tasks
Entering tanks, vessels or pits that may contain hazardous atmospheres and other hazards to perform work

Hazards
Chemical exposures
Particle exposures
Flash fire

Chemical-resistant (CR) gloves

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Tychem® NP530
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Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

For a full list of PPE solutions, visit SafeSPEC™.
Available PPE options

Particle garments

Tyvek® 400
Tyvek® 400 garments are composed of flashspun high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 10 micron in size). Protection is built into the fabric itself; there are no films or laminates to abrade or wear away.

Tyvek® 800
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 10 micron in size).

Cut-resistant gloves

PIP G-Tek® KEV™ 09-K1600
The seamless knit construction of these PIP G-Tek® KEV™ gloves provides comfort without sacrificing dexterity. The Kevlar® fiber shell provides high tensile strength, excellent cut resistance and it won’t melt, ignite or conduct electricity. The nitrile foam grip is compatible with light oils and provides excellent abrasion resistance.

Chemical-resistant/ flame-resistant (CR/FR) garments

Tychem® 2000 SFR
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury. Tychem® 2000 SFR offers triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Tychem® 6000 FR
Tychem® 6000 FR styles TP98T and TP99T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Cut-resistant sleeves

MCR Safety Cut Pro® ‘9318KVT
This Cut Pro® sleeve with Hero® Technology offers high levels of protection and comfort for workers in tough environments. Made with blended Kevlar®, stainless steel and nylon fibers, this 18-inch sleeve with thumb slot provides excellent cut and abrasion resistance.

Superior Glove® Dexterity® SKG/PXNE
Made with a blend of Kevlar® and Protex® yarns, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm² ATPV protection.

Ironclad Heatworx® Heavy Duty HW6X
These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-impregnated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

For a full list of PPE solutions, visit SafeSPEC™.

For a full list of PPE solutions, visit SafeSPEC™.
Available PPE options
Flame-resistant (FR) garments

Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men's and women's styles and sizes.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

FR face mask made with Nomex®
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

Tyvek® 400
Tyvek® 400 garments are composed of flashspun high-density polyethylene, which creates a unique, nonwoven material. Tyvek® 400 fabric offers an inherent barrier against particles (down to 1.0 micron in size). Protection is built into the fabric itself, there are no films or laminates to abrade or wear away.

Tyvek® 800
Tyvek® 800 garments combine resistance to low-concentration, water-based inorganic chemicals with the strength and durability of Tyvek®. The coveralls provide an effective barrier against many water-based inorganic chemicals in low concentration and particles (down to 15 micron in size).

Non-FR/chemical-protective garments

Tychem® 2000
Tychem® 2000 is a lightweight and durable fabric that uses the strength of Tyvek® fabric and polyethylene coating. Tychem® 2000 offers permeation barrier protection for at least 30 minutes against more than 40 chemical challenges.

Tychem® 4000
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Tychem® 6000
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Tychem® 10000
Tychem® 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

Chemical-resistant/Flame-resistant (CR/FR) garments

Tychem® 2000 SFR
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won't ignite if a flash fire occurs and won't contribute to additional burn injury.

Tychem® 6000 FR
Tychem® 6000 FR styles TP198T and TP199T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

Chemical-resistant (CR) gloves

Tychem® PV350
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Tasks

Shut down process
Determine hazards
Lockout/tagout (LOTO)
Monitor hazardous atmospheres
Perform work

Hazards

Chemical exposures
Particle exposures
Flash fire
Pressurized equipment
Cut hazards requiring cut level A2 and thermal level 4 protection

For a full list of PPE solutions, visit SafeSPEC®.
Tychem® NT470

These unlined, 8-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The biseque finish grip makes working in humid environments easier.

Tychem® NP570 CT

These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Tychem® BT730

These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a “second-skin” feel, anatomical shape and rough surface, Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

Tychem® 2000 Tape

Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

Thermal gloves

Superior Glove® Dexterity® 565G/PK5XNE

Made with a blend of Kevlar® and Protex® yarns, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm² ATPV protection.

Ironclad Heatworx® Heavy Duty HV6X

These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.

Cleaner hands, cleaner environment.

*Tychem® gloves and tape should not be used around heat, open flame, sparks or in potentially flammable environments.

For a full list of PPE solutions, visit SafeSPEC™.
Arc-rated, cut-resistant gloves

**Superior Glove**® Dexterity® S18KGDONE

Made with Kevlar® fiber, these Dexterity® 18-gauge FR arc flash gloves provide 25 cal/cm² ATPV protection and dual cut protection—the glove body has an ANSI level A3 cut rating and the cuff has a level A6 cut rating. A neoprene palm coating enables excellent grip—both wet and dry. Electrostatic dissipating (ESD) carbon filament imparts anti-static properties.

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**SHOWA 240**

Lightweight and comfortable, 13-gauge glove lined with Kevlar® with sponge neoprene palm coating. Flame-resistant Kevlar® enables protection against arc flash up to level 2. Flat dipped sponge neoprene coating provides enhanced grip and the anatomical design helps prevent hand fatigue.

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Preventive maintenance

**Tasks**

- Performing electrical work

**Hazards**

- Performing electrical work

**Available PPE options**

**Flame-resistant (FR) garments**

**Nomex® Comfort**

Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

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**Nomex® Essential**

A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

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**Nomex® FR face mask made with Nomex®**

Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

*FR face masks are for use while social distancing and may be used for other tasks identified by a site-based risk assessment.

**Non-FR/chemical-protective garments**

**Tychem® 6000**

Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

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**Tychem® 10000**

Tychem® 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem® 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.
**Preventive maintenance**

**Tasks**
- Unit shutdown or start-up
- Regularly scheduled preventive maintenance (PM)
- Troubleshooting

**Hazards**
- Flash fire
- Chemical exposures
- Struck-by hazards

**Cut hazards requiring either cut level A2 or A3 protection OR cut level A2 protection with thermal level 4 protection**

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**Chemical-resistant/flame-resistant (CR/FR) garments**

**Tychem® 2000 SFR**

Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won’t ignite if a flash fire occurs and won’t contribute to additional burn injury.

**Tychem® 6000 FR**

Tychem® 6000 FR styles TP198T and TP199T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 180 toxic industrial chemicals and may be used as a primary FR garment.

**Chemical-resistant (CR) gloves**

**Tychem® PV350**

Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

**Tychem® NT470**

These unlinned, 15-mil nitrile gloves offer protection against a wide range of solvents, oils, hydraulic fluids and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

**Tychem® NPS70 CT**

These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NPS70 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

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**Preventive maintenance**

**Tasks**
- Unit shutdown or start-up
- Regularly scheduled preventive maintenance (PM)
- Troubleshooting

**Hazards**
- Flash fire
- Chemical exposures
- Struck-by hazards

**Cut hazards requiring either cut level A2 or A3 protection OR cut level A2 protection with thermal level 4 protection**

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**Cut-resistant gloves**

**Superior Glove® Endura® 375GKOV8**

These goatskin Endura® driver gloves lined with Kevlar® offer excellent cut resistance and feature impact-resistant back-of-hand protection and gel pad palm inserts for vibration dampening. These gloves provide protection without impeding flexibility or dexterity and are treated with Oilblok® for outstanding oil and water resistance.

**Ironclad Kong® Pro A6 SDX2P**

The Kong® Pro A6 glove features a high-strength palm fabric and a Kevlar® liner for exceptional cut protection, high durability and maximum dexterity. Full FR coverage delivers up to 80% reduction in impact forces and patented design provides complete fingertip pinch protection.

**Superior Glove® Dexterity® SKG/PXNE**

Made with a blend of Kevlar® and Protex®® yarns, these winter-lined arc flash gloves provide excellent heat and cut resistance. Neoprene palm coating features great FR properties and good oil resistance. These gloves provide 25 cal/cm2 ATPV protection.

**Ironclad Heatworx® Heavy Duty HW6X**

These heavy-duty gloves have a full Kevlar® shell for extra heat protection and improved cut resistance combined with a Kovenex® palm liner and silicone-laminated Kevlar® blend finger sidewalls for extreme heat protection in critical areas.
Flash fire
Particle exposures
Chemical exposures
Hazards
and neutralize/clean up
Stop hazardous material release
Tasks
Emergency response—fire, spill or release

Available PPE options
Flame-resistant (FR) garments
Nomex® Comfort
Nomex® Comfort is a lightweight, quick-drying innovative fabric that delivers extreme heat and flame protection, maximum comfort and excellent durability. Garments are available in men’s and women’s styles and sizes.

Nomex® Essential
A highly durable protective solution that helps minimize break-open and offers excellent heat and flame protection.

FR face mask made with Nomex®
Made with Nomex® Comfort fabric, this FR face mask from PGI Safety may help meet guidance from the U.S. CDC for wearing masks in environments that require FR protection while social distancing. This FR face mask offers exceptional breathability and durability with inherent, built-in flame resistance that cannot be washed out or worn away.

Hoods made with Nomex® Nano Flex
Thin, lightweight and durable, hoods made with Nomex® Nano Flex help prevent potentially harmful particulates from being absorbed through the skin on the neckline and upper jaw, which are areas that historically are known to be the most vulnerable and least protected. When added to a firefighter hood composite structure, hoods made with Nomex® Nano Flex result in up to a 4X increase in particle barrier efficiency.

DuPont is proud to collaborate with these manufacturers of hoods made with Nomex® Nano Flex:

<table>
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<tr>
<th>Manufacturer</th>
<th>Description</th>
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<tr>
<td>Fire-Dex</td>
<td>FR Rated Hoods for研学 Level A and B Response</td>
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<td>PGI</td>
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</tr>
<tr>
<td>Viking</td>
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Non-FR/chemical-protective garments

Tychem® ‘10000
Tychem®’ 10000, an extremely durable fabric that is puncture- and tear-resistant, offers at least 30 minutes of barrier protection against 322 chemical challenges with no observed breakthrough. Tychem®’ 10000 is specifically designed for protection against toxic, corrosive gases, liquids and solid chemicals.

Tychem® 6000
Tychem® 6000 garments are made of a proprietary barrier film laminated to a Tyvek® substrate. The fabric offers at least 30 minutes of protection against more than 180 chemical challenges. Tychem® 6000 garments are strong, durable and lightweight.

Tychem® 4000
Tychem® 4000 offers effective protection against a range of chemical environments, offering at least 30 minutes of protection against more than 120 chemical challenges.

Chemical-resistant/Flame-resistant (CR/FR) garments

Tychem® ‘10000 FR
“Single skin” fully encapsulated Level A garment offers broad chemical holdout. This garment offers at least 30 minutes of protection against more than 290 chemicals.

Tychem® 6000 FR
Tychem® 6000 FR styles TP190T and TP199T are single-layer garments that offer triple hazard protection against liquid chemical splash, flash fire and electric arc flash. Tychem® 6000 FR offers at least 30 minutes of protection against more than 300 toxic industrial chemicals and may be used as a primary FR garment.
Tasks
Stop hazardous material release and neutralize/clean up

Hazards
Chemical exposures
Particle exposures
Flash fire

Protection in the most extreme environments

For a full list of PPE solutions, visit SafeSPEC™.

Tychem® 2000 SFR
Tychem® 2000 SFR offers chemical and secondary flame protection in a lightweight garment. Worn over primary FR garments such as Nomex® Comfort, they won't ignite if a flash fire occurs and won't contribute to additional burn injury.

Tychem® PV350
Extremely durable, these 55-mil PVC gloves provide protection against chemicals, oils and greases. The cotton/jersey knit lining adds comfort and flexibility while the textured grip makes it easier to grasp wet objects.

Chemical-resistant (CR) gloves*

Tychem® NT470
These unlined, 19-mil nitrile gloves offer protection against a wide range of solvents, oils, hydrocarbons, greases and other chemicals. Thin and lightweight, Tychem® NT470 gloves are ergonomically designed to maximize comfort. The bisque finish grip makes working in humid environments easier.

Tychem® NP570 CT
These 68-mil neoprene gloves, which feature an engineered yarn liner, provide protection against the dual risk of chemical exposure and cut. Tychem® NP570 CT gloves provide ANSI level A5 and EN level E cut protection, as well as first-class defense against acids, caustics, solvents, greases and oils.

Tychem® BT730
These unlined, 14-mil butyl gloves provide protection against a wide array of chemicals, including acids, ketones and alcohols. Light and thin with a “second-skin” feel, anatomical shape and rough surface, Tychem® BT730 gloves are comfortable and enable optimal grip. Impermeable for working in damp or greasy environments.

Tychem® 2000 Tape
Tychem® 2000 Tape helps hold a sleeve over a glove, a pant leg over a boot or a closure flap closed, while providing protection against a variety of inorganic acids and bases, as well as common industrial cleaning agents, such as bleach. The tape tears easily for quick and convenient application. Repositionable once applied, the tape’s elasticity enables tight adhesion to help prevent leaks.

*Tychem® gloves and tape should not be used around heat, open flame, smoke or in potentially flammable environments. For professional use only.
Global reach

With operations in 96 countries and technical centers staffed with experts across the globe, we are here to provide you with the support you need when choosing the right PPE.

Our Thermo-Man® (life-sized thermal burn injury evaluation) and Arc-Man® (arc flash injury evaluation) units provide compelling demonstrations that help educate industrial workers about the durability and heat, flame and electric arc resistance that DuPont Safety PPE delivers.
We’re here to help

DuPont™ SafeSPEC™, our powerful web-based tool, can assist you with finding the appropriate DuPont garments for chemical, controlled environment, thermal, electric arc and mechanical hazards.

SafeSPEC™ has a full permeation test results database for Tychem® fabrics & gloves and allows you to search by either hazard or industry to help you find the right protection for the job at hand.

safespec.dupont.com
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