

A full-page photograph of a male worker in a blue uniform and white hard hat, focused on his task. He is wearing heavy-duty work gloves and is using a red-handled tool to work on a large, dark industrial pipe. The background shows a complex industrial environment with various pipes, ladders, and structural elements under bright lighting. A semi-transparent grey box containing text is overlaid on the upper part of the image.

Putting science to work
PEOPLE PROTECTION

DUPONT PERSONAL PROTECTION

Because someone's life may depend on it.

Over the last 35 years, DuPont has been actively engaged in transferring its knowledge and experience in industrial safety to the companies worldwide. DuPont is the inventor and the world's largest producer of high-performance materials and solutions with leading world brands such as NOMEX®, TYVEK®, TYCHEM® and KEVLAR®, providing personal protection, be it thermal, mechanical or chemical.





Garment selection is a life-saving choice

Various types of protection are needed when working with organic or inorganic chemicals, oils and lubricants, asbestos, dioxins or other hazards, as well as exposure to fine dusts, liquid aerosols, splashes, liquids or gases. This means that choosing the most suitable garment is an extremely important task of safety management because it is vital for ensuring that your employees have the right protection.

- Selection of heat and flame as well as chemical protective clothing is based on risk assessment.
- The European Directive 89/656/EEC requires documentation of all risks at the workplace but there is no European regulation for risk assessment.
- Users are obliged to consider workplace risks as documented based on the aforementioned European Directive for each specific situation and assess them according to the existing national regulations.

Garments are designed with the highest levels of care and expertise

We are committed to ensure the perfect fit, size, design and fabric performance of each garment. Our designers understand that protective clothing should not hinder the wearer from performing and working in safety. Comfort is also a crucial consideration for our protective clothing specialists and rigorous industrial testing is undertaken to ensure the ideal combination of protection and comfort. Ongoing trials have shown that users are satisfied and feel safe wearing all DuPont Personal Protection garments.

Nomex®

Flash fire and electric arc protection

Every day, workers in the gas, petroleum and petrochemical industries who work around flammable and explosive materials are exposed to the hazards of flash fires. Although it can be over in a matter of seconds, a flash fire can cause debilitating 1st, 2nd and 3rd degree burns. The correct protective clothing for the job can help protect against burn injury. Offshore oil rig crews, fuel handlers and pipeline workers, plant operators as well as mechanics and many more workers exposed to the risk of heat and flame rely on the protection of DuPont™ NOMEX® to help minimize the potential for burn injuries.



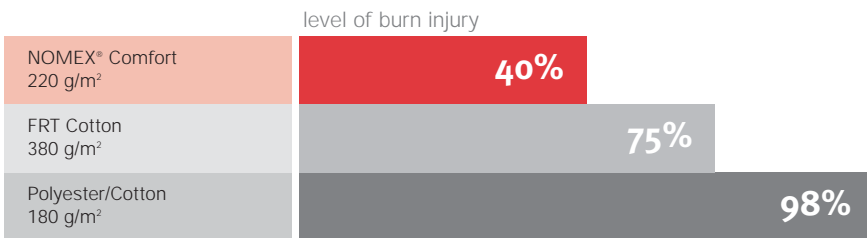
Garments made of DuPont™ NOMEX® brand fibres play a key role in providing the valuable seconds people need to escape and survive the flash fires that can result from ignited fuel in any environment. The protection that NOMEX® provides is inherent and permanent, "built into" the molecular structure of the fibre itself. It does not come from chemical treatment or add-ons and whether it is found in protective suits, underwear, balaclavas, gloves or socks, the exceptional flame resistance provided by NOMEX® cannot be washed out or worn away. Materials that are not inherently flame resistant can increase the risk and severity of burn injuries when engulfed in flames, as they can melt onto the skin. NOMEX® brand fibre does not melt nor drip when exposed to a flash fire. It will self extinguish when removed from the heat source, and starts carbonizing at 380°C only. So in the event of a flash fire, the skin protected by a garment made of NOMEX® is likely to escape the 2nd or 3rd degree burns probable if conventional fabrics are worn. The protective qualities of NOMEX® garments last throughout their lifetime, providing much higher value for money than other materials.

NOMEX® thermal technology manages the extremes of heat yet still delivers incredible lightness. Not only is NOMEX® brand fibre flame resistant, it is breathable, durable and comfortable to wear. All garments carrying the DuPont™ NOMEX® brand label comply with stringent quality, performance and compatibility standards and are available only from manufacturers licensed under the DuPont™ NOMEX® Quality Programme.



Used widely in Europe, protective garments made of NOMEX® Comfort fine fibre provide permanent antistatic properties. They are very soft and comfortable and move unwanted sweat away from the body, with sweat affected areas drying very quickly - ideal for wearing next to the skin in the form of jackets, trousers, coveralls, underwear, socks and accessories. The NOMEX® fibre family consists of: NOMEX® III, NOMEX® Antistatic, NOMEX® Comfort, NOMEX® Tough, NOMEX® Tough Plus and NOMEX® MetalPro.

PROTECTIVE PERFORMANCE OF GARMENTS COMMONLY OFFERED IN HEAT AND FLAME PROTECTIVE APPAREL



Test parameters: 4 seconds exposure, short cotton underwear, all garments have the same cut and design.



Tyvek®

Solid particles and low concentrated inorganic chemicals protection

TYVEK® delivers inherent barrier protection. Touch any garment from the comprehensive DuPont™ TYVEK® product range, such as TYVEK® Classic, and you will notice the difference. It is a unique and versatile material that is tough, yet light and soft. TYVEK® was invented and is manufactured exclusively by DuPont. TYVEK® is permeable to air and water vapour, yet repels water-based liquids and aerosols. It acts as an efficacious barrier against particles and fibres. It is low-linting.

This unique combination of properties makes TYVEK® right for a broad range of applications: industrial cleaning and maintenance, land clean-up, chemical industry, emergency response to name a few.



Tyvek®- the balance between protection, durability and comfort.

Optimum protection

- Barrier against particles larger than 1 micron due to its structure of fine, continuous fibres.
- Resistant to low-level liquid aerosols from water-based chemical spray.
- TYVEK® is antistatically treated, so that when the coveralls are correctly earthed electrostatic charge build-up is prevented.

Optimum durability

- TYVEK® is tough, tear and abrasion resistant.
- Coveralls retain their integrity in arduous conditions and maintain protection levels throughout their usage.

Optimum comfort

- TYVEK® protective coveralls “breathe” and feel pleasant against the skin.

Tyvek® Classic

TYVEK® Classic is the reference protective garment for protection against airborne solid particulate chemicals and limited protection against liquid mist. It offers a right combination of protection, durability and comfort due to its unique fabric.

TYVEK® Classic is designed to protect workers from hazardous substances and to protect sensitive products and processes from human contamination. Typically used for protection against solid-particle exposure and mist, i.e. low-level liquid aerosols from water-based chemical spray.

Tyvek® Classic Plus

With its overtaped seams, this suit is good for toxic dry particulate environments or to prevent liquid penetration through seams. This model takes full advantage of TYVEK® inherent barrier protection because the seams are tight. TYVEK® Classic Plus combines the performance of protection against liquid aerosols with the comfort of a nonwoven suit.

This suit is a recommended solution for respirator wearers because the hood is designed for use with respirators. Available with integrated socks!

DuPont™
TYVEK®



Tychem®

Chemical and biological protection

TYCHEM® product range offers lightweight comprehensive protection starting at low toxic chemicals up to biological hazards. The TYCHEM® protective clothing is commonly used for oil handling; land decontamination; production plants decommissioning; industrial cleaning and maintenance; tank and oil tanker cleaning; spill clean-up and accident intervention; gas supply sector; typical chemical industry applications or where protection against biohazards is needed.

Tychem® C

TYCHEM® C garments offer protection against many concentrated inorganic chemicals. The fabric of TYCHEM® C protective clothing meets EN 14126 requirements for protection against biological hazards in the highest performance class. These garments offer maximum comfort as they are designed to provide the right fit and ease of movement for the wearer when completing difficult tasks. These garments also come with thumb loops and integrated socks!

Tychem® F

TYCHEM® F garments offer protection against numerous organic chemicals and highly concentrated inorganic chemicals. The TYCHEM® F protective clothing meets the EN 14126 requirements for protection against biological hazards in the highest performance class. These garments offer maximum comfort as they are designed to provide the right fit and ease of movement for the wearer when completing difficult tasks. Available also with thumb loops and integrated socks!



Tychem® C2 and Tychem® F2

NEW! The innovative and revolutionary design of our lightweight coveralls combine improved mechanical strength with barrier protection against a wide range of chemical and biological hazards. Are you looking for reliable protection for industrial cleaning or chemical manufacturing? Or do you need a high quality protective suit for use in the petrochemical industry? TYCHEM® C2 and TYCHEM® F2 garment range from DuPont Personal Protection offers you safe and reliable protection for various applications where high mechanical strength is needed!

DuPont™
TYCHEM™

Kevlar®

Cut, slash and abrasion protection
with excellent heat resistance

DuPont™ KEVLAR® specializes in the protection of hands and wrists against cuts and abrasions, and offers functioning solutions to a wide range of mechanical risks. In response to the specific needs of certain industries and users, DuPont Personal Protection offers them a high level of performance and has redefined the description and characteristics of its protective equipment:

KEVLAR® is a synonym for lightweight, comfortable and enduring protection against cuts, lacerations and abrasions with an excellent heat resistance. Protective gloves, sleeves and aprons carrying this brand name come with a guarantee of conformity to strict performance and quality standards, and are produced by KEVLAR®- licensed manufacturers.

KEVLAR® protective equipment is highly resistant to external influences, possesses excellent properties in the presence of heat, has low thermal conductivity and is very robust even when subjected to intensive use.

KEVLAR® technology provides built-in protection in the fibre, which is not adversely affected by repeated washing or long-term use. KEVLAR® protective equipment enables its users to work safely. After subjecting KEVLAR® to thorough tests simulating – extreme situations, DuPont has designed a range of products satisfying a wide spectrum of safety and protection requirements.



Kevlar® Comfort Technology

Designed for wear by personnel performing high-precision operations, KEVLAR® Comfort Technology ensures a high degree of personal comfort, flexibility and dexterity, plus efficient protection against cuts, scratches and abrasions. KEVLAR® Comfort Technology has the advantage to combine deftness of touch with superior cut protection and low tendency to fluff.

Kevlar® Armor Technology

Protective gloves and sleeves using KEVLAR® Armor Technology are designed for use in very high-risk situations and provide the maximum level (5) of protection against cuts specified in EN 388. Users working in hazardous environments enjoy an exceptionally high degree of protection from KEVLAR® Armor Technology, whilst at the same time being able to work in comfort and without restriction of movement.

All protective equipment bearing DuPont™ KEVLAR® Power of Performance label conform to strict quality, performance and compatibility standards. It is manufactured by carefully selected licensees working to KEVLAR® quality assurance specifications and guarantees an optimum degree of protection at all times both to its users and to those responsible for ordering its use.



DuPont™ KEVLAR® provides the ideal combination: protection, comfort and safety.

Protection

- Excellent cut and thermal resistance
- Abrasion protection
- The particular protection offered by KEVLAR® is an integral and permanent part of the fiber composition. KEVLAR® maintains its protective qualities throughout the lifetime of the personal protective equipment

Comfort

- Manual dexterity
- Tactile perception and control
- Flexibility
- Thermal insulation
- Lightweight

Safety

- High-performance solution
- Contributes to a healthier, safer, more productive and more comfortable working environment

DuPont™
KEVLAR®

Disclaimer:

This information is based upon technical data that DuPont believes to be reliable. It is subject to revision as additional knowledge and experience becomes available. DuPont does not guarantee results and assumes no obligation or liability in connection with this information. It is the user's responsibility to determine the level of toxicity and the proper personal protective equipment needed. This information is intended for use by persons having the technical expertise to undertake evaluation under their own specific end-use conditions, at their own discretion and risk.

Anyone intending to use this information should first check that the garment selected is suitable for the intended use. The end-user should discontinue use of garment if fabric becomes torn, worn or punctured, to avoid potential chemical exposure. Since conditions of use are beyond our control, we make no warranties, expressed or implied, including but not limited to warranties of merchantability or fitness for a particular purpose and assume no liability in connection with any use of this information.

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