





Dear firefighters and rescue workers

Did you know that your safety is what drives us day in, day out? It is precisely why we work on continuously improving our protective clothing. The new S-GARD catalog provides an overview of our product range, new products and fascinating stories from the world of firefighting and rescue.

We are delighted to present one of the latest innovations on the market in the form of the Nomex[®] Nano flex-material by DuPont[™]. This fabric keeps harmful soot particles away from your skin, as you can see from page 36ff. This is why we are already incorporating this particle blocker in products such as the NANO FLAME PROTECTION HOOD (from page 58ff).

And the hood is just one of many exciting product innovations you can find in this catalog: the ENDURANCE series that is the first to combine flame protection with comfortable stretch material (p. 48) and the multi-functional fleece weather protection jacket STORMGARD (p. 65) are new additions to our range.

You will see how important the subjects of research and development are to us when you read the story relating to our research project EFAS, for instance. In this case, we are helping to develop a concept that is designed to make firefighting operations on board seagoing vessels safer (from page 20ff).

But why not just take a moment and browse through our catalog yourself? Tip: the practical overview on page 79 will help you gain a better insight into the different materials, membranes and details. Just fold it out when you start browsing to see supplementary product information.

You can find additional product information, detailed photos and videos as well as the latest news and dates of training sessions on our website: **s-gard.com**

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Safetytour

SKYGARD Height Rescue

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Our thanks go to the fire services of Düsseldorf and Mönchengladbach who gave us their active support during the photo shoot.

46-47





WE ARE YOUR PARTNER WHEN IT MATTERS MOST.

You fight fires and save lives. That requires courage, experience and reliance in your team and in your equipment.

So that you can feel safe in extreme situations, are optimally prepared and have the best possible protection, we can provide you with high quality firefighting clothing and modern training options. And we've been doing this for more than 130 years.

Based in Heinsberg in Germany, we develop firefighting clothing that protects you against high temperatures, moisture and toxic substances. We collaborate closely with experienced operational personnel and textile and clothing experts and are constantly at work to improve our technology, materials and equipment. We also participate in standards committees and research projects and actively contribute to the development of protection and quality standards. We see it as our task to make your work easier and safer.

Continuous upgrading and refreshing of your knowledge will contribute to providing you with all-encompassing protection. In the form of our Safetytour, we provide education and further training sessions in which we employ a wide variety of teaching methods – from individual team workshops, to dialog sessions designed specifically for senior officers to our big annual event 'Best of' there's something for everyone.

We see ourselves as a one-stop shop partner and are also able to provide you with advice on aspects such as the care, cleaning and repair of firefighting clothing. Do you have questions, wishes or suggestions? Call us! We'll take the time for you.



Your personal S-GARD consultant is there for you every day from 8 a.m to 4 p.m. (Central European Time)

+49-2425-9909-0





Turnout gear requires special care – not only so that the desired protective effect lasts as long as possible. The correct care also offers the best protection against pathogenic substances that can be retained in the fabric after use.

The S-GARD service

To relieve your station of this problem make sure clothing is processed in accordance with its level of soiling, S-GARD offers a special care and maintenance service. We train and accredit laundries in handling S-GARD firefighter protective clothing to ensure you can concentrate on your actual work. In addition, we hold seminars for fire departments and provide instructions and checklists for inhouse care.

You can find information on our services online at **s-gard.com**



Correct impregnation is essential. The protective layer ensures that the upper fabric does not become water-logged and also other particles will not adhere to it so readily. At the point where water no longer forms beads and rolls off the surface, clothing needs to be re-impregnated.

Many washes, shorter life? Not necessarily!

To make sure our protective clothing survives a number of washing cycles, we only use high quality materials, such as membranes supplied by the fabrics manufacturer Gore. The unsurpassed durability ensures a consistent appearance and the best protective properties.



You can use our special wash tool to clean your open jacket. Protective fabric strips cover the zipper: This prevents them from damaging your jacket during cleaning.

Your jacket will also be thoroughly cleaned on the inside.





S-GARD PRODUCT HIGHLIGHTS AT A GLANCE

	ULTIMATE Page 10	TITAN Page 16	HUNTER Page 18	SWISSGUARD Page 18	HERO Page 22	ADVANCE PROGRESS Page 28	BASIC PLUS Page 32	DYNAMATE Page 34	SARTEC Page 40	RESPONSER Page 44	ATTACK TYP A Page 45	
EN 469:2005 Cl. 2	»	>>	>>	>>	>>	>>	>>	>>	CLASS 1	CLASS 1	CLASS 1	STANDARD
High-vis vest exemption	>>	>>	>>	>>	>>	>>	>>		>>	>>	>>	GENERAL
MOVE+ ease of movement	MOVE+3D	>>	>>	>>	>>			MOVE+3D	MOVE+3D			_
Inspection openings	>>	>>	>>	>>	>>	>>			>>		>>	_
Extended back section	>>	>>	>>	>>	>>	>>		>>	>>			JACKET
One flashlight holder with snap lock	>>	>>	>>	>>	>>	>>	>>	>>	>>			_
One tool loop on left	>>	>>	>>	>>	optional							_
Height-adjustable radio pockets	2 not height-adjustable	2	2	2	2	2		1 not height-adjustable		1		
Knitted cuffs with ITC system	>>	>>	>>	>>	>>	>>	>>	>>	>>	>>		
PRX9000 technology shoulder	not for GORE® PARALLON™ system	>>		>>	>>			outside				_
IRS-ready: DTS pocket and tunnel	>>	>>	>>	>>	optional							_
Integrated comfort suspender system	>>	>>	>>	>>	>>	>>		detachable	detachable		>>	PANTS
Two openings with integrated pocket	>>	>>	>>	>>	>>	>>	only openings				only openings	
Leg width adjustment	>>	>>	>>	>>	>>	>>			>>			
Preshaped leg seam with heel cut-out	>>	>>	>>	>>	>>			>>			>>	_
Boot lock hook, joins pants and boots	>>								>>			





EN 469:2005 Cl. 2

MOVE+3D External shoulder protectors Ergonomically shaped collar with chin guard and Heat Seal design Tool pocket on Chest pocket, the left upper arm radio-compatible Holder for an angle-head flashlight Waterproof multigrip front closure Cargo pockets with snap-hook loops and Load Control System Knitted cuffs with ITC

ULTIMATE COAT

- MOVE+3D ease of movement with High Reach sleeve design
- Ergonomically angled S-Pocket design
- Body Language reflective strips
- PRX9000 technology in the shoulder area (not on GORE® PARALLON™ system)
- IRS-ready: DTS pocket, tunnel, tool loop on left
- Two chest pockets, radio-compatible

• Reinforced/extended grips on front pockets and adjusting elements

gold black-blue

- Napoleon bag
- Reinforced cuff edges
- 3M 9687 Tripletrim reflective strips with quadruple seams
- High-visibility vest exemption in combination with pants

Material variants:

PBI® / GORE® PARALLON™ system | gold cognac

DuPont™ Nomex® TITAN / GORE® PARALLON™ system |
gold black-blue

Nomex* TITAN / AIRLOCK* | gold black-blue Nomex* TITAN / AIRLOCK* | red black-blue Nomex* TITAN / Fireblocker | gold black-blue

Boot lock hooks





gold black-blue

ULTIMATE PANTS

- Integrated comfort suspender system
- Padded knee area with PRX9000 technology
- Two cargo pockets with Load Control System
- Ergonomically angled S-Pocket design
- Boot lock hook, joins pants and boots
- MOVE+3D freedom of movement with Leg Mobility design and preformed sections
- PRX9000 technology on rear flap (not for GORE® PARALLON™ system)
- Access gusset and side placket
- Two openings with pocket pouches
- High-visibility vest exemption in combination with jacket

Material variants:

PBI® / GORE® PARALLON™ system | gold cognac

DuPont™ Nomex® TITAN / GORE® PARALLON™ system |
gold black-blue

Nomex® TITAN / AIRLOCK® | gold black-blue Nomex® TITAN / AIRLOCK® | red black-blue Nomex® TITAN / Fireblocker | gold black-blue







A LOOK BACK AT 130

YEARS OF EXPERTISE

With his horse-drawn wagon, Hubert Schmitz once delivered his linen material to the

local weavers without knowing that he was laying the cornerstone for the S-GARD

brand. Today, S-GARD is synonymous with high quality and innovative protective and

functional clothing and is now being managed in its fifth generation, still at its original

S-GARD

location in Heinsberg.









In 1887, Hubert Schmitz founded a linen weaving company in Heinsberg in Germany, near the border with the Netherlands. Initially Hubert Schmitz produced fabrics made of jute or flax. These were used as covered wagon canopies, windmill sails and sailcloth for Dutch boats using the Meuse.

1899/1900 | Mechanization

In the beginning, Hubert Schmitz brought his materials to hand loom weavers who worked in their own homes to produce fabrics. Around the turn of the century, the entrepreneur decided to install mechanized looms at his premises.

1920 | Cotton captures the market

After the First World War, cotton fabrics became increasingly sought after. Heinrich Schmitz, Hubert Schmitz's son, started to produce articles for domestic use, such as hand towels and bedding.

1933–1945 | World War interrupts business

In the time just before and during the Second World War, the business was shut down because director Heinrich Schmitz was unwilling to play by the rules of the Nazis.

1950-1960 | Fabrics for heavy industry

In the 1950's Heinrich Schmitz's son Hans-Heinrich Schmitz expanded the scope of the business. The old, heavy but robust machines were capable of producing 600 g/m² cotton fabric of the sort needed to make protective clothing for miners. The weaving mill - to which a dye works and clothing manufacturing plant had been added – then produced protective clothing for use in the coal mining and metal heavy industries.

1980er

Health and safety become increasingly important

In the 1980's there was increasing emphasis on occupational health and safety in Germany: road workers needed to be better protected. Hubert Schmitz GmbH began producing high-visibility clothing. In 1989, the S-GARD brand was officially trademarked.

1990er

Standardized fire department protective clothing

Following the introduction of the protective clothing for firefighters standard EN 469 in Europe and the corresponding HuPF guidelines in Germany,

Hubert Schmitz GmbH decided to extend its scope

manufacture of protective firefighter clothing. Here it places a particular emphasis on the quality of its products. To both make sure of this and guarantee the best level of safety, S-GARD began to work from the very start with leading fabric brand partners

of operations. It now begins to specialize in the

2008 | Specialization

such as Gore, 3M and DuPont™.

Current premises

Hubert Schmitz GmbH begins to focus solely on the manufacture of state-of-the-art and innovative protective clothing. In addition to firefighter protective clothing, S-GARD develops and produces clothing for specialized applications, such as high visibility and height rescue clothing and workwear for the emergency and technical assistance services.



Schmitz, the sons of Heinrich Schmitz, Hubert Schmitz GmbH has become the market leader for high quality firefighter protective clothing in the German-speaking countries. S-GARD is represented on many standardization committees, actively collaborates in research projects and has recently been successively awarded the 'Innovation through Research' seal of approval by the Federal Ministry of Education and Research (BMBF).



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TITAN s-gard.com



TITAN COAT

- MOVE+ ease of movement with High Reach sleeve design
- PRX9000 technology in the shoulder area
- Superimposed side pockets with bellows
- IRS-ready: DTS pocket, tunnel, tool loop on left
- Two chest pockets, height-adjustable and radio-compatible
- · Reinforced/extended grips on front pockets and adjusting elements
- Napoleon bag
- Reinforced cuff edges
- 3M 9687 Tripletrim reflective strips with quadruple seams
- High-visibility vest exemption

Material variants:

PBI®/ AIRLOCK® | gold

DuPont™ Nomex® TITAN / AIRLOCK® | gold black-blue DuPont™ Nomex® TITAN / AIRLOCK® | black-blue



BEST INSULATION

WITH EASE OF MOVEMENT

Bellows pocket with knife pocket

TITAN PANTS

black-blue

- · Integrated comfort suspender system
- · MOVE+ ease of movement
- PRX9000 technology on rear flap
- Access gusset and side placket
- Reinforced/extended grips on cargo pockets and adjusting elements
- · Two openings with pocket pouches
- High-visibility vest exemption in combination with jacket

Material variants:

PBI® / AIRLOCK® | gold

DuPont™ Nomex® TITAN / AIRLOCK® | gold black-blue DuPont™ Nomex® TITAN / AIRLOCK® | black-blue

Comfort suspender Kidney protection with PRX9000 protectors Reinforced grips Padded knee area with aramid fleece Reinforced inner leg Leg width adjustment Reinforced cuff edges and heel cutout at the bottom of the gold black-blue pre-shaped leg seam

EN 469:2005 Cl. 2

EN 469:2005 Cl. 2

DTS/IRS rescue system





SWISSGUARD COAT

- Two loops with D-rings beneath the chest pocket flaps
- Body Language reflective strips
- MOVE+ ease of movement with High Reach sleeve design
- IRS-ready: DTS pocket, tunnel, tool loop on left
- Two chest pockets, height-adjustable and radio-compatible
- Reinforced/extended grips on front pockets and adjusting elements

- · Napoleon bag
- · Reinforced cuff edges
- 3M 9687 Tripletrim reflective strips with quadruple seams
- High-visibility vest exemption

Material variants:

red black-blue

DuPont™ Nomex® RSK / Fireblocker | black-blue DuPont™ Nomex® RSK / Fireblocker |

HUNTER COAT

- Tool pocket on the left upper arm
- Two loops with D-rings beneath the chest pocket flaps
- MOVE+ ease of movement with High Reach sleeve design
- IRS-ready: DTS pocket, tunnel, tool loop on left
- Two chest pockets, height-adjustable and radio-compatible
- Reinforced/extended grips on front pockets and adjusting elements

- Napoleon bag
- Padded shoulder area with aramid fleece
- · Reinforced cuff edges
- 3M 9687 Tripletrim reflective strips with quadruple seams
- · High-visibility vest exemption

Material variants:

DuPont™ Nomex® RSK / Fireblocker | black-blue red IMPROVED VISIBILITY
FOR ENHANCED
PROTECTION



Knife pocket

SWISSHUNTER PANTS

- · Integrated comfort suspender system
- MOVE+ ease of movement
- PRX9000 technology on rear flap
- Access gusset and side placket
- Reinforced/extended grips on cargo pockets and adjusting elements
- Preshaped leg seam with heel cut-out
- Padded knee area with aramid fleece
- Two openings with pocket pouches
- Reinforced leg cuff edges
- High-visibility vest exemption in combination with jacket

Material variants:

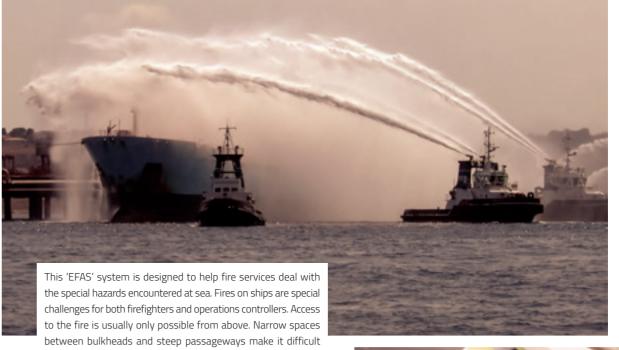
DuPont™ Nomex® RSK / Fireblocker | black-blue DuPont™ Nomex® RSK / Fireblocker | red EN 469:2005 Cl. 2

Comfort suspender system



O Reinforced inner leg Access gusset and side placket



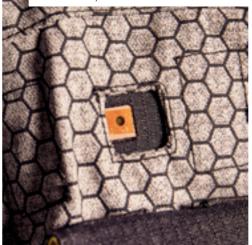




New sensors, more safety

Special radio systems are planned that will ensure maintenance of communications within the interior of ships in the future. A special sensor system has been developed by the research team. This monitors the bodily functions of firefighting teams, detects the ambient temperatures and toxic gas levels and shows exactly where teams are located.

for the emergency services to reach the source of a fire. Even operations controllers may find it difficult to get an overview of the situation within a ship. Thick steel walls prevent radio transmission, so that it is near impossible to locate and make contact with firefighting teams. But all this is going to change.





The protective suit rethought

As part of this research project S-GARD is developing a special protective suit and providing for the integration of the above technical systems within it. It is even necessary to consider the fit of the suit. Because firefighters have to advance through rising smoke to get to a fire, the opportunities for it to penetrate the suit must be minimized. The result is a streamlined, heat-reflecting full-body suit that allows full mobility of the wearer.





HERO COAT

- MOVE+ ease of movement with High Reach sleeve design
- PRX9000 technology in the shoulder area
- IRS-ready: DTS pocket, tunnel, tool loop on left (optional)
- Two chest pockets, height-adjustable and radio-compatible
- Reinforced/extended grips on front pockets and adjusting elements
- 3M 9687 Tripletrim reflective strips with quadruple seams
- High-visibility vest exemption

Material variants:

DuPont™ Nomex® Tough / AIRLOCK® | black-blue with/ without DTS Nomex® NXT / AIRLOCK® | black-blue with DTS

HERO SERIES

The convincing classic

This all-rounder series fulfills all common safety standards and offers all of the usual practical detail features in premium quality – plus a few extras.

EN 469:2005 Cl. 2

Waist size adjustment



COMFORTABLE, RELIABLE FIT WITH EVERYTHING IN REACH

Bellows pocket with knife pocket

HERO ATTACK PANTS

- Integrated comfort suspender system
- MOVE+ ease of movement
- PRX9000 technology on rear flap
- Access gusset and side placket
- Reinforced/extended grips on cargo pockets and adjusting elements
- Two openings with pocket pouches
- High-visibility vest exemption in combination with jacket

Material variants:

DuPont™ Nomex® Tough / AIRLOCK® | black-blue Nomex® NXT / AIRLOCK® | black-blue





IRS QLOCK

- Rescue and restraint sling pursuant to EN 358, EN 1498-A
- QLock quick-lock system
- Fastener (self-belay sling)
- Width: 8 cm
- Available sizes: XS-3XL (use your jacket size as a guide)
- Snap hook and fastener not required

IRS

- Rescue and restraint sling pursuant to EN 358, EN 1498-A
- Width: 8 cm
- Available sizes: XS-3XL (use your jacket size as a guide)



HEART LIGHT SNAP HOOK FOR IRS

· With a Trilock closure



FASTENER FOR IRS

Self-belay sling



PULL-THROUGH AID (DUMMY)

• Fabric: 190 g/m² 100% cotton FR



Better than any standard



Areas of use

- Support and restraint
- Self-rescue
- Rescuing people
- Raising and lowering

Advantages

- Quickly ready for use with integrated protection
- Relieves the core muscles and prevents back injury
- Safe even if you lose consciousness
- Lightweight design that preserves the membrane
- Improves air circulation and breathing activity
- No snagging on building elements or in the vehicle

Use

The intended use is described in, among others, the German documents FWDV 1 "Grundtätigkeiten – Lösch- und Hilfeleistungseinsatz" and BGI/GUV-18651 "Sicherheit im Feuerwehrdienst".



DTS/IRSRESCUE
SYSTEM

You are deployed on a slippery incline or are standing on a ladder. Together with a specialist in rope protection we developed the DTS/IRS rescue system to make it easier for you to rescue others or secure yourself. The major advantage for you is that the integrated rescue and restraint sling, or IRS for short, is an integrated part of the firefighter's coat and therefore always ready for use when you need it. Simply open the storage pocket (DTS) to pull out the fastener. And you can rely on its practical handling if you should ever be in danger and need rescuing.

s-gard.com

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The DTS/IRS system is an integrated feature of jackets from the ULTIMATE, TITAN, HUNTER and SWISSGUARD series and also optional for the HERO coats.

ADVANCE PROGRESS s-gard.com

EN 469:2005 Cl. 2

ITC System Ergonomic collar Shoulder protectors Holder for an Height-adjustable angle-head flashlight radio pocket Snap-hook loop Reinforced cuff edges black-blue



- Two chest pockets, height-adjustable and radio-compatible
- Padded shoulder area with aramid fleece
- · Knitted cuffs with ITC system

- 3M 9687 Tripletrim reflective strips with quadruple seams
- Extended back section
- High-visibility vest exemption

Material variants:

DuPont™ Nomex® Tough / Fireblocker | black-blue DuPont™ Nomex® NXT / Fireblocker | gold LIGHTWEIGHT LAYER
CONSTRUCTION, SAFE
AND RELIABLE FEATURES



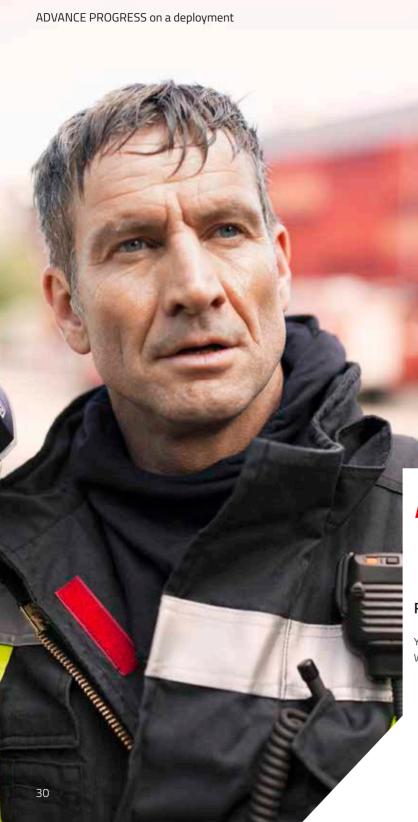
ADVANCE PROGRESS PANTS

- · Integrated comfort suspender system
- · MOVE+ ease of movement
- Two openings with pocket pouches
- Reinforced leg cuff edges
- High-visibility vest exemption in combination with jacket

Material variants:

DuPont™ Nomex® Tough / Fireblocker | black-blue DuPont™ Nomex® NXT / Fireblocker | gold







ADVANCEPROGRESS

FIGHTING AGAINST FATIGUE

You are exposed to flames and high temperatures in your work. We protect you from heat stress.

If you compare the current hazard analyses of fire services around the world with the results of previous years you will notice that the number of burns and scalds is on the decline. The reason for this is that protective clothing now affords increasing amounts of insulation and can withstand ever higher temperatures. However, this goes hand in hand with a significant increase in strain caused by heat stress.

Rather than burns, the biggest risk faced by fire-fighters is circulatory collapse. The causes are overheating and exhaustion. This is exactly our starting point for the development of the ADVANCE PROGRESS series: We decided to opt for an especially lightweight layer design for the jackets and pants so that you are exposed to as little thermal stress as possible. Thanks to the low weight, wear comfort is significantly improved and the body can dissipate heat more rapidly because we use a hard-wearing material blend as an outer layer.

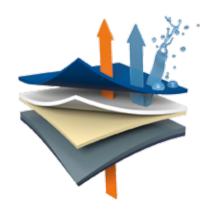
Lightweight layers with high-level protection

Simultaneously, the clothing affords you reliable protection from flames, heat, contamination and weather conditions. That is why we use a resilient material mix for the outer fabric. The membrane in the core layer makes the coat and pants impermeable to firefighting water or rain. In addition, the insulating lining protects the wearer against hazardous contaminants.

The lightweight layer design of ADVANCE
PROGRESS series reduces the risk of heat
stress – and keeps you efficient for longer.

Statistics in coming years will show whether and to what extent new product developments reduce the risk of fatigue and exhaustion. We at S-GARD have taken up the challenge.





BASIC PLUS s-gard.com

EN 469:2005 Cl. 2 HIGH-VIS Ergonomically shaped collar Holder for an anglehead flashlight Knitted cuffs with ITC system

BASIC PLUS COAT NEW

 3M 9687 Tripletrim reflective strips with quadruple seams • High-visibility vest exemption

black-blue

Material variants:

DuPont™ Nomex® Tough / Sigmatex | black-blue

HIGH QUALITY OF WORK-MANSHIP FULFILLS EVERY DEMAND IN DAILY SERVICE

Knife pocket

BASIC PLUS PANTS NEW

- Detachable suspenders
- MOVE+ ease of movement
- Two openings without pocket pouches
- High-visibility vest exemption in combination with jacket

Material variants:

DuPont™ Nomex® Tough / Sigmatex | black-blue

Knee protectors

EN 469:2005 Cl. 2

Padded knee area with aramid fleece

black-blue

Winner of theDuPont™ Nomex® Innovation Award **DYNAMATE** SERIFS Sometimes less is more When selecting the correct protective clothing, it's about more than just the material composition. While one team might go for many extras and details another prefers it kept simple without too many bells and whistles. Increasingly, suits must be as light as possible without impairment of quality and level of protection. To meet these special requirements, we've developed the DYNAMATE series.

AS LITTLE AS POSSIBLE, BUT AS MUCH AS NECESSARY



combination with a newly developed, comfortable cut ensure plenty of freedom of movement. Perfect when you've got to move fast.

Even if the DYNAMATE series may look basic, it incorporates the highest DuPont™. This dense functional material is very heat- and flame-resistant, caliber of innovation. For the first time, we've made all openings, at the neck, sleeves, waistband and pant legs, impervious to particle access with elastic bands or a a closure made of Nomex® Nano Flex-Material supplied by

highly elastic and breathable. The cuffs prevent smoke gas particles getting into the suit and being absorbed by the skin.

Various toxic substances are released during fires. Formaldehyde, benzene and polycyclic aromatic hydrocarbons (PAHs) form when wood, plastic, furniture, electrical devices and construction materials burn. During operations, breathing protection masks reliably prevent toxic particles entering the respiratory tract; however, more and more studies are demonstrated that there is a connection between firefighting and an increased risk of cancer in firefighting professionals.

Absorption of soot particles

The apparent cause seems easy to identify. When taking off their protective clothing, the micro-particles on the surface of a suit are again dispersed and inhaled by the now unprotected firefighters. This can be prevented by better operational hygiene.

But there is also another previously underestimated factor that is responsible – absorption by the skin of soot particles. Through the smallest openings in clothing – in the head area, the sleeves, waistband and pant legs – particles can enter and be deposited unnoticed on the skin during firefighting. They accumulate in the pores that have become enlarged on exposure to heat and enter the body.

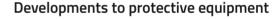


SOOT PARTICLES ON THE SKIN

Soot particle protection

An underestimated risk to health

It has mainly been necessary to date to ensure that fire protection clothing protects the wearer on exposure to extreme thermal conditions. In the future, it will also have to provide reliable physical barriers that prevent soot particles reaching firefighting professionals. Why is this?

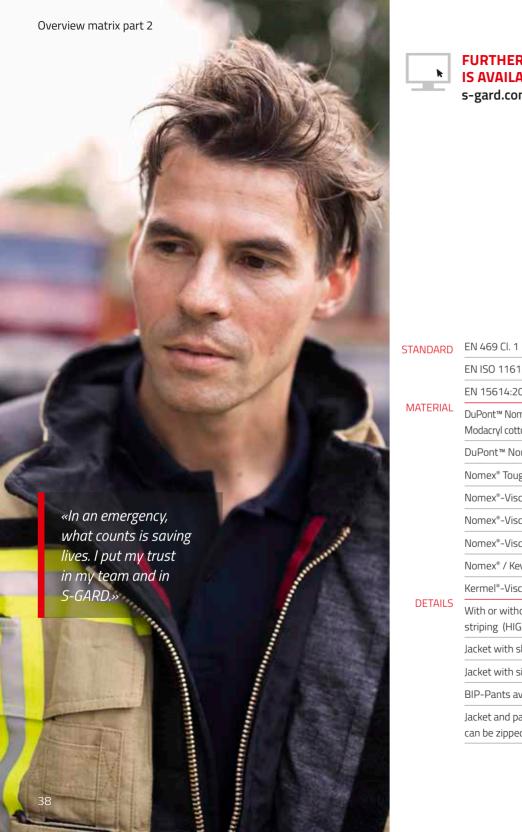


It is now no longer enough to ensure that protective clothing is adequately heat-resistant. It has become necessary to improve existing equipment to make sure the skin is protected against toxic particles. Hence, in our DYNAMATE protective suit and our NANO FLAME PROTECTION HOOD, we've used Nomex® Nano Flex material supplied by DuPont™. This extremely dense but lightweight functional material reliably keeps soot particles from your skin.

Operational hygiene

Soot particles aren't just a danger during operations. Even afterwards, the risk to you should not be underestimated. Initial cleaning of your suit, shoes and helmet at the site of deployment is thus essential. It reduces the amount of soot that you could carry with you into the station. Careful separation also reduces transportation and thus the potential absorption of particles that are damaging to health. If you are going straight home after a deployment and not back to the station, never take the contaminated clothing with you. You will find more information on the correct care and cleaning of protective firefighting clothing on page 6.

On request, we can also introduce the nano-particle barrier into other products in our range. Please contact us!





DETAILS

S-GARD **CLOTHING FOR TECHNICAL RESCUE** AND EVERYDAY WORK

		SARTEC Page 40	RESPONSER Page 44	ENDURANCE Page 48	GARANT Page 50	PROTEAM Page 52	FIRSTGARD FR Page 54	RANGER 2.0 Page 56
D	EN 469 Cl. 1	>>	>>					
	EN ISO 11612:2009		>>	>>	>>	>>	>>	
	EN 15614:2007							>>
IL.	DuPont™ Nomex® RSK / Modacryl cotton / Flameliner	>>						
	DuPont™ Nomex® RSK / Flameliner	>>						
	Nomex® Tough / Flameliner		>>					
	Nomex®-Viscose 300 g				>>			
	Nomex®-Viscose 265 g						>>	
	Nomex®-Viscose Elastane			>>				
	Nomex® / Kevlar® / New wool / Lenzing							>>
.S	Kermel®-Viscose					>>	Jacket	
	With or without reflective striping (HIGH-VIS)			>>	>>	>>		
	Jacket with shoulder tunnels			>>	>>	>>	>>	
	Jacket with side pockets	>>	>>	>>	>>		>>	
	BIP-Pants available				>>			
	Jacket and pants can be zipped together							>>





luminous yellow black-blue

SARTEC COAT

- MOVE+3D ease of movement with High Reach sleeve design
- Ergonomically angled S-Pocket design
- Two cargo pockets with snap-hook loops and Load Control System
- · Tool pockets on both upper arms
- · Body Language reflective strips

- Napoleon bag
- · Waterproof multigrip front closure with tab
- · Adjusters reinforced with reflective material and operable with gloves on
- · Luminous yellow black-blue variant with special EN ISO 20471 Standard Cl. 2

Material variants:

DuPont™ Nomex® RSK / Modacryl cotton / Flameliner luminous yellow black-blue DuPont™ Nomex® RSK / Flameliner | red black-blue



SARTEC SERIES

Your personal S-GARD consultant is there for you every day from 8 a.m to

4 p.m. (Central European Time)

Performance-enhancing protection

The new ergonomic design with special stretch zones and intelligent features gives you maximum freedom of movement during technical assistance assignments. It is one of the basic prerequisites for lasting performance.

EN 469:2005 Cl. 1

Stretch zone with protectors around the knee

ATHLETIC DESIGN FOR MAXIMUM FLEXIBILITY AT WORK



luminous yellow black-blue

SARTEC PANTS

- Detachable comfort suspenders
- Two cargo pockets with Load Control system
- Ergonomically angled S-Pocket design
- Boot lock hook, joins pants and boots
- MOVE+3D freedom of movement with Leg Mobility design and preformed sections
- Reinforced/extended grips on cargo pockets and adjusting elements
- Reinforced inner leg cuff edges
- Adjusters reinforced with reflective material and operable with gloves on
- Luminous yellow black-blue variant with special EN ISO 20471 Cl. 1

Material variants:

DuPont™ Nomex® RSK / Modacryl cotton / Flameliner | luminous yellow black-blue

DuPont™ Nomex® RSK / Flameliner | red black-blue





 $\frac{6}{6}$

RESPONSER / ATTACK TYP A / RESCUE LIGHT s-gard.com

EN 469:2005 Cl. 1

Two-ply design





RESPONSER COAT

- Two chest pockets, height-adjustable and radio-compatible on the left
- Knitted cuffs with ITC system
- 3M 9687 Tripletrim reflective strips with quadruple seams
- Pleats in back for greater ease of movement
- High-visibility vest exemption

Material variants:

DuPont™ Nomex® Tough / Flameliner | black-blue

EN 469:2005 Cl. 1

Two-ply design





ATTACK TYPE A,

black-blue

ATTACK TYP A PANTS

- Integrated comfort suspender system
- Access gusset with cover strip
- Reinforced cuff edges and heel cutout at the bottom of the pre-shaped leg seam
- · Padded knee area with aramid fleece
- Openings without pocket pouches
- High-visibility vest exemption in combination with jacket

Material variants:

Nomex® Tough / Flameliner | black-blue

RESCUE LIGHT PANTS

- Protectors around the knee
- Preshaped leg seam with heel cut-out

Material variants:

Nomex® Comfort | black-blue

EN ISO 11612:2009

Knee protectors



RESCUE LIGHT, black-blue

Education and training s-gard.com



SAFETYTOUR ON THE GO FOR MORE SAFETY

In your job, you constantly encounter new situations and have to learn new things. Technical requirements are becoming more challenging. Factors such as aggressive behavior and intrusive onlookers are increasingly becoming problems for your team. To ensure that you always stay on top of things and that your operations are safer, we offer our Safetytour, a state-of-the-art training course designed for firefighters, emergency and technical assistant services.

Our Safetytour can be adapted to your specific needs and is more than just a straightforward training course. There are individual team workshops, dialog sessions especially for senior officers and our big annual 'Best of' event, combining education tailored to current needs and diverse teaching methods. Regardless of whether you are learning something new or simply want to brush up on your existing knowledge - eminent firefighting specialists from all over Germany will be there to provide you with the benefit of their combined professional insights. Together, you'll look at highly topical aspects of firefighting in the areas of working methods, communication and team leadership.

Here is an overview of the various features of our Safetytour:



Workshops on-site at your premises

In the individually-tailored workshops, you'll learn valuable know-how with regard to theory and practice from experienced firefighters. Workshops are available on a year-round basis on 40 different subjects, ranging from CBRN-related operations through team development to conflict management. And so you don't have to invest your valuable time and energy in organization and travel; the trainers will hold the workshops in your station or a location nearby and these will take into account your routine operations, your level of knowledge and your available equipment.

'Dialog' - the recipe for success

If you manage employees and want to strengthen your team, you need courage, empathy and plenty of professional knowledge. In dialog sessions designed for senior offices that are held across Germany, you will experience lectures by eminent specialists on a variety of topical themes and unusual deployments. You'll extend your knowledge, profit from new technologies and procedures and you'll receive practical tips and tricks for leadership. There is always a focus on the close interaction with other senior firefighting officers.



Our big annual event 'Best of'

So that everything runs like clockwork in the case of an emergency, you can experience the best of the Safetytour features in the annual 'Best of' sessions. While you master challenges in areas such as breathing protection and hazardous materials in the various team training sessions, you'll also experience an exciting combination of theory and practice in the workshops. In the dialog sessions, you'll be able to hear specialists talk on red-hot topics. There's something for everyone, irrespective of needs and qualifications, at our 'Best of'. And the best thing is that you can put together your event program according to your own wishes.

IN ANY SITUATION







ENDURANCE DUTY JACKET NEW

- Two chest pockets with the left pocket designed as a height-adjustable radio pocket
- Two side pockets with snap-hook loops
- · Shorter front and longer back section
- · Reinforced elbows
- Adjustable sleeve width
- · Optional without reflective striping

Material variants:

Nomex®-Viscose Elastane | black-blue



As HIGH-VIS





ENDURANCE DUTY PANTS NEW

- Zipped back pocket
- 2 side pockets, right with tool pocket, left with zippered small pocket
- Two thigh pockets with pen pockets
- With extended waistband
- · Optional without reflective striping

Material variants:

Nomex®-Viscose Elastane | black-blue



ENDURANCE SERIES

Flame protection meets stretch

In daily service, you want clothing that is not only safe, but also flexible. Our ENDURANCE series therefore consists of the newly developed, elastic DuPont™ Nomex® material. This unites high flame protection with comfortable stretch for the first time - without a membrane. The body-hugging cut and many details give the daily service clothing its very modern look.

GARANT s-gard.com

EN ISO 11612:2009 A1, A2, B1, C1

As HIGH-VIS







black-blue

black-blue with reflective striping

GARANT DUTY JACKET

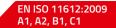
- Shoulder flaps and tunnels
- Two chest pockets; the left pocket is designed as a height-adjustable radio pocket
- Two side pockets; the left pocket has a snap hook loop
- Two zipped inner pockets
- · Adjustable sleeve width
- Inspection opening
- Optionally without reflex fixtures and side pockets

Material variants:

DuPont™ Nomex®-Viscose 300 g | black-blue DuPont™ Nomex®-Viscose 300 g | black-blue with reflective striping

EXTRA-ROBUST AND DURABLE - FOR EVEN MORE SAFETY AT WORK





As HIGH-VIS









black-blue

black-blue

BIP-Pants

- Two back pockets
- Two side and bellows pockets on each side
- HIGH-VIS additionally with reinforced knees

GARANT HIGH VIS DUTY PANTS

Optional without reflective features

Material variants:

DuPont™ Nomex®-Viscose 300 g | black-blue

DuPont™ Nomex®-Viscose 300 g | black-blue with reflective striping

DuPont™ Nomex®-Viscose 300 g | black-blue BIP-Pants with reflective striping

PROTEAM s-gard.com

EN ISO 11612:2009 A1, A2, B1, C1

Also as HIGH-VIS







black-blue with reflective striping

PROTEAM DUTY JACKET

- Two chest pockets; the left pocket is designed as a height-adjustable radio pocket
- Two zipped inner pockets

- · Adjustable sleeve width
- Inspection opening
- Optional reflective features

Material variants:

KERMEL®-Viscose | black-blue

KERMEL®-Viscose | black-blue with reflective striping

CLASSIC WORK CLOTHES - WITH OPTIONAL REFLECTIVE STRIPING







PROTEAM DUTY PANTS

- Two back pockets
- Two side and bellows pockets on each side
- Optional reflective features

Material variants:

KERMEL®-Viscose | black-blue

KERMEL®-Viscose | black-blue with reflective striping

52

EN ISO 11612:2009 A1, A2, B1, C1

Also as HIGH-VIS



FIRSTGARD FR s-gard.com

EN ISO 11612:2009 A1, A2, B1, C1

Blouson cut

black-blue

FIRSTGARD FR DUTY JACKET

- Two superimposed breast pockets
- Additional radio pocket accessible from the outside
- Two side pockets
- Inspection opening

Material variants:

DuPont™ Nomex®-Viscose 265 g | black-blue

KERMEL®-Viscose | black-blue (for combination with

PROTEAM duty pants, p. 53)

THE MOST FLEXIBLE CLOTHING FOR DAYTIME DUTY

EN ISO 11612:2009 A1, A2, B1, C1

Pleats



Your personal S-GARD consultant is there for you every day from 8 a.m to 4 p.m. (Central European Time) +49-2425-9909-0

-49-2425-9909-0

FIRSTGARD FR DUTY PANTS

- Two back pockets
- Two bellows pockets

Material variants:

DuPont™ Nomex®-Viscose 265 g | black-blue

black-blue

Also ask us about our models for North Rhine Westphalia and Baden-Wuerttemberg

RANGER 2.0 s-gard.com

EN 15614:2007 A1



yellow black-blue

RANGER 2.0 COAT

- Arms-up construction
- Napoleon bag
- Right inside pocket
- · Stretch zones under the arms

- Shorter front and longer back section
- Breathable reinforcements
- Velcro fasteners

Material variants:

DuPont[™] Nomex* / Kevlar* / New wool / Lenzing | yellow black-blue

TWO-PIECE OR OVERALLS? RANGER 2.0 CAN DO BOTH



EN 15614:2007 A1

RANGER 2.0 ELASTIC WAISTBAND PANTS

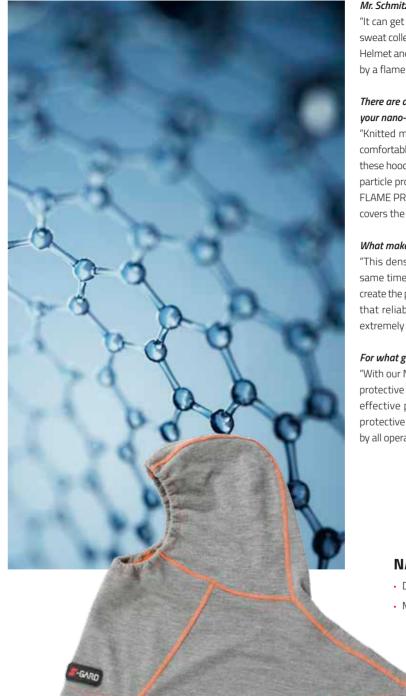
- Six belt loops
- · Zipped back pocket
- Two zipped side pockets
- Two thigh pockets with cargo bellows
- Stretch zones in knee, seat and crotch areas
- Breathable reinforcements
- Velcro fasteners

Material variants:

Nomex® / Kevlar® / New wool / Lenzing | yellow black-blue

yellow black-blue





Mr. Schmitz, why does the head and neck area need special protection?

"It can get very hot in the head region during firefighting. The pores open up, sweat collects on the neck and the absorption capacity of the skin is increased. Helmet and mask protect a large part of the head. The rest is usually protected by a flame protection hood."

There are already flame protection hoods on the market. What makes your nano-hood different to these?

"Knitted material is employed in most flame protection hoods. This is soft, comfortable and very flexible. In contrast to the rest of the protective clothing, these hoods normally do not have a membrane. So they do not provide reliable particle protection in the head and neck area. So we've developed the NANO FLAME PROTECTION HOOD. It serves as a reliable barrier against particles and covers the unprotected areas very reliably."

What makes the Nomex® Nano Flex material so unique?

"This dense functional material is very heat- and flame-resistant. At the same time, it is very lightweight, elastic and breathable. So we were able to create the perfect supplement to the firefighting suit, helmet and mask – a hood that reliably protects the wearer against smoke gas particles and is still extremely comfortable."

For what groups is the NANO FLAME PROTECTION HOOD intended?

"With our NANO FLAME PROTECTION HOOD, we've developed a comfortable protective product for the whole team. The hood offers quick, easy yet very effective protection against particles and should be a component of all protective equipment. It is the ideal complement to the protective gear worn by all operational personnel."

NANO FLAME PROTECTION HOOD NEW

- DIN EN 13911:2017-conform
- Material: Nomex®-Viscose / Nano Flex

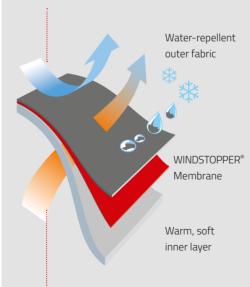


The special material used for our WINDSTOPPER® jacket consists of three layers: a water-repellent outer fabric, a windproof membrane and a warm, soft layer on the inside. So this lightweight jacket will regulate your body temperature and remain comfortable to wear in any situation, regardless of how adverse the weather conditions or how strenuous your work may be.

The OFFICER is equipped with everything you need for your routine duties, including numerous pockets, molded sleeves and a stand-up collar. The practical details and excellent material properties mean that WINDSTOPPER® products have far surpassed traditional sweaters in recent years.

Absolutely windproof

Maintains body heat and protects the wearer from the cold in poor weather conditions



Maximum breathability

Prevents overheating and moisture buildup because water vapor can escape freely



Absolutely windproof

Highly breathable



OFFICER WINDSTOPPER®

- · Shoulder flaps and tunnels
- · Sleeve pocket with flap and pen slot
- Two breast and two side pockets with zips
- Pre-formed sleeves
- · Extended back section
- Stand-up collar

Material variants:

WINDSTOPPER® Laminate | black-blue



61

GARDIAN / MAJOR s-gard.com

EN 343:2010 Class 3/3

PROTECTED IN ANY WEATHER

Three-ply design





black-blue

GARDIAN WEATHER PROTECTION JACKET

· Collar with integrated hood

• Left sleeve pocket

· Shoulder flaps and tunnels Two side pockets with zips

- Inspection opening

Polyester-cotton / Sigmatex | black-blue

Material variants:

Reliable weather protection



COMFORTABLE FIT AND COMPREHENSIVE PROTECTION



MAJOR SOFTSHELL JACKET

- Cover strip with push studs
- Shoulder tunnel and flaps
- Two breast pockets with flaps and push studs
- Two angled side pockets with zips
- · Adjustable sleeve cuff

Material variants:

Three-ply laminate polyester, polyurethane | black-blue

62

COMMAND / STORMGARD s-gard.com

Pleasantly warming

SO COLD DOESN'T STAND A CHANCE

Numerous pockets



COMMAND FLEECE JACKET

- · Shoulder flaps and tunnels
- Breast and sleeve pocket with pen pocket
- Two side pockets with zips

Material variants:

Micro-Fleece | dark-blue

Windproof

ONE JACKET, MANY FUNCTIONS

Three-ply design





steel blue

STORMGARD FLEECE AND WEATHER RESISTANT JACKET NEW

- Stand-up collar
- · Shoulder flaps and tunnels
- Stable front closure with windproof liner and chin protector
- 2 chest pockets, right as a Napoleon pocket
- Two zipped side pockets
- Reinforced shoulders, elbows, forearms and sides
- Elastic sleeve cuffs and draw-cord in the hem
- With reflective piping

Material variants:

Micro-Fleece | steel blue

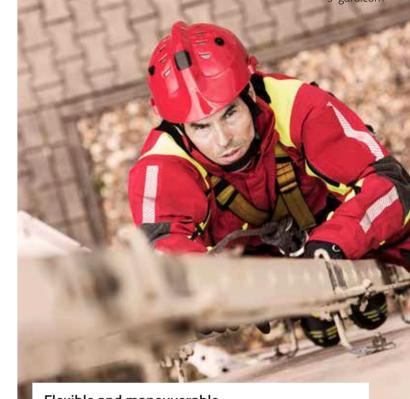
65



No matter whether you are travelling in a rescue helicopter, abseiling from a cliff face, or working in a rope rescue unit or an offshore installation – your work clothing needs to be light and fit well and protect you from wind and rain as well as from injury And it needs to be extremely durable. That is why we incorporate special materials like resilient fabric in the SKYLITE series. The advantage: It dries quickly and is windproof but your sweat escapes quickly to the outside. The weatherproof SKYGARD series features a GORE® membrane to afford additional protection from rain and snow.



MAXFLEX pockets are arranged so you can reach them when wearing a safety belt – even with gloves.



Flexible and maneuverable

We make use of preformed sleeves and legs, stretch zones, gusset inserts in the pants and a special sleeve cut to ensure you have adequate room to maneuver and feel comfortable in your clothing – these concepts are also used in outdoor and mountain sports clothing. Another special feature is that the coat and pants are loose enough to wear functional base layers underneath. At the same time, they fit close enough not to be disruptive when climbing.

Cleverly designed for safety – easy to use

All pockets are easily accessible when you are wearing a safety belt – even with gloves. That is ensured by zips with large pulls, one-hand pull cords and tabs. These zips allow you to open the vents underneath the arms and on the thighs. There is also an adjustable hood suitable for wearing with a helmet that provides for a clear view – particularly good when the weather is stormy. Reflective striping for better visibility rounds off the features of the SKYGARD and SKYLITE series.

SKYGARD s-gard.com

EN 343:2010 Cl. 3/3



SKYGARD COAT

- Waterproof, helmet-compatible storm hood with peak, visual field and volume adjustment integrated in the stand-up collar
- Four waterproof cargo pockets on the sleeve with integrated fastening loops
- Two angled breast pockets with optimized access angle
- · Ventilation zips underneath the arms
- · Water protection gaiters on the sleeve seam
- Contoured reflective striping

Material variants:

GORE-TEX two-ply laminate | red-luminous yellow

FULLY WEATHERPROOF
HEIGHT RESCUE CLOTHING
FOR THE MOST DIFFICULT
OPERATIONS



9

SKYGARD PANTS

- Internal connecting system for jacket and pants
- Elastic, removable Y-suspenders
- Knee pocket made of Kevlar® with PRX9000
- Two cargo pockets at calf height
- Water-protection gaiters on the leg seams
- Boot lock hooks in the seams

Material variants:

GORE-TEX two-ply laminate | red-luminous yellow

SKYLITE s-gard.com

Wind-repellent and climate regulation



red-luminous yellow

SKYLITE COAT

- Stretch zones on back, sleeves and sides
- Hood with peak, visual field and volume adjustment integrated into the stand-up collar
- Ventilation zips

- Four cargo pockets on the sleeve with integrated fastening loops
- Two angled breast pockets

Material variants:

DURAGARD | red-luminous yellow

HIGHLY FUNCTIONAL
TWO-PART SUIT FOR HIGHALTITUDE OPERATIONS



SKYLITE PANTS

- Internal connecting system for jacket and pants
- Elastic, removable Y-suspenders
- Knee pocket made of Kevlar® with PRX9000
- Stretch zones on the sides, buttocks and knees
- Two front slot pockets
- Boot lock hooks in the seams

Material variants:

DURAGARD | red-luminous yellow

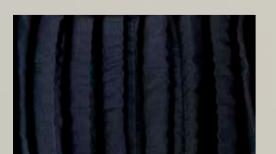


S-GARD **PLASTIC ZIPPERS**

Fireproof and very light. Our plastic zippers are made of a fire-retardant special plastic with a fiberglass reinforcement. Compared to the metal versions, they are significantly lighter and do not heat up as much when exposed to flames and are also more resistant to wear during washing. An additional highlight is the fact that there is anti-slip grip for comfortable operation while wearing gloves.

S-GARD PRX9000 PAD-**DING ELEMENT**

Comfort and relief: Padding makes sense in areas that support your breathing apparatus, for example. Integrated carefully into your clothing, PRX9000 elements relieve the pressure on strained shoulder and back areas while maintaining insulation. The individual pads of foamed, permanently elastic and flame-resistant special polymer material are arranged in a way that promotes the exchange of air between the back and chest areas, thereby increasing comfort.





S-GARD MOVE+ / **MOVE+3D DESIGN**

Comfortable and flexible: The Move+ design in the shoulder and underarm areas ensures the coat fits comfortably and your upper body has adequate room to maneuver. The Move+3D cut features preformed, threedimensional sections on the elbows, knees and collar as well as special wedge inserts in the lower sleeves of the coat and in the gusset area of the pants for a greatly improved fit. The 3D design enhances maneuverability during climbing and stretching movements and when you're performing overhead work.

S-GARD KNITTED **CUFF WITH ITC SYSTEM**

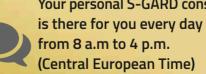
Secure closure – perfect fit. S-GARD cuffs made of DuPont™ Nomex® special knitwear safely seal off your coat's sleeves. You can use the "Individual Thumb Control" (ITC) system to adjust the thumb opening to suit your hand size.





Developed for your comprehensive protection with loads of comfort

We have developed special systems to ensure you have the best possible protection in extreme situations, that your clothing fits comfortably and that you have the necessary room to move.



+49-2425-9909-0

s-gard.com

Fire service accessories FEUERWEHR **FIRE SERVICE** ACCESSORIES Even more for your protection and your team You can find an overview here of our fire service accessories that provide you additional protection from flames.

IDENTIFICATION COLLAR

- Extremely fire-resistant
- Individually printable
- · Optionally available with loop material for applying a back label
- Modacryl cotton
- · Choose the size that matches your S-GARD jacket model



Available for all overcoat models



MULTIFUNCTION VEST

- · Two microphone holders, two side and two radio pockets (right pocket with safety snap hook)
- Double front zip with quick-release buckles
- Side width adjuster with clamp buckles
- Fastening option for two back ID signs
- Modacryl cotton



FLAME PROTECTION HOOD

- EN 13911:2004
- · Elastic band in visual field
- Extra-flat seams
- Interlock, KERMEL®-Viscose
- With particle barrier: You'll find information on the NANO FLAME PROTECTION HOOD made of DuPont™ Nomex® Nano Flex material see from page 58ff.

EMBLEMS / SHOULDER

· Includes fastening and sewing

· Customized designs (coats of arms, etc.)



We can customize your protective clothing with name badges and coats of arms on request. Our service staff will be pleased to advise you.



BACK ID SIGNS

available

with hook and loop set

FOR MORE INFORMATION **PLEASE VISIT**



INSIGNIA









PROTECTIVE PONCHO

- Protects the compressed air breathing apparatus in heat box training
- · Nomex® Tough



NAME EMBLEMS

- · Customized production
- · Carrier material to match the clothing





- 3M™ Scotchlite™, 38 x 8 cm, one-sided

• Two-line ID signs and other formats are









brane – firefighting operations place heavy strain on your protective clothing and can even damage it. This is where our experienced repair service staff are at your side. They check your protective jackets and pants without delay and repair them professionally.

To ensure you get your service clothing back as soon as possible, we design and manufacture S-GARD protective clothing so that we can get it back into shape with little technical cost and effort. Our principle of "repair friendliness" saves you time and money.



Care and maintenance

With the right care, you'll maintain the protective effect of your firefighting clothing and extend the wearing comfort and retain its appearance. We can help you with this through our various care seminars and accredited partner laundries.

You'll find information and tips about care and maintenance from page 6ff.

Emergency supply

In the event of unforeseeable occurrences such as contaminations for which your protective clothing is inadequate, we will take care of ensuring a fast emergency supply of the protective clothing you need.

Test run

Put the protective properties and comfort of our S-GARD service clothing to the test and get to know all the features and functions directly in deployment situations. We would be pleased to provide you with the latest model ranges for test purposes so you can see the properties of our clothing systems for yourself.

Service close to you

You can find an overview of all our services and events on our website. It contains, for instance, detailed information on size tables as well as care and maintenance instructions. You can also download repair and return slips from our website free of charge.

You can find detailed information relating to services and your contact partners at s-gard.com/service



MATERIALS AND TECHNOLOGIES

Robust layers for challenging operations

The changing requirements of your job demand a great deal of your protective clothing. Here at S-GARD, we develop products that combine all the essential protective functions by incorporating the latest materials and different layer structures. Everywhere, at any time.

The three layers

Our clothing typically consists of three layers. The flame-resistant upper fabric protects you and the layers underneath it from mechanical forces such as friction and is also highly tear-resistant.

A **moisture barrier** repels rain and firefighting water. Simultaneously, a breathable membrane ensures sweat is reliably transported away from the body to the outside.

Finally, the lining makes the clothing comfortable to wear.

These three layers work together to create a functional air cushion – the so-called thermal insulation layer that protects you from the severe heat of a fire. That's because air is a poor conductor of heat. By the way, the same principle is used when it comes to manufacturing winter clothing, just without the flame-proof materials.

We will be pleased to assist you in person in your search for the layer structure that is right for you.

Take a look inside: our technologies at a glance



Why is this subject so important?

23 x

faster speed at which heat and cold can travel to the body through wet textiles in comparison to dry textiles.

2°C

make all the difference. When your core body temperature increases by 2°C, your ability to perform starts to decline.

12°C

more heat against the skin is perceived as painful.

HE MOST IMPORTANT UPPER TEXTILES

PBI[®]

- Highest tear-resistance on the market
- Soft and supple, even under the influence of heat
- Does not break up after contact with flames
- 205 g/m²

TITAN

- Premium textile of the Nomex® range
- Spacers for additional insulation
- Especially heat-resistant thanks to an additional air cushion
- Very good wash resistance thanks to a high Nomex® content
- Long-lasting impregnation
- 220 g/m²

TOUGH

- Most popular material on the market
- Spun-dyed
- Robust, resistant to friction and tearing
- 195 g/m²

RSK

- Textile specially developed in collaboration with S-GARD
- Now even more resistant to friction and tearing thanks to ripstop
- Good wash resistance thanks to a high Nomex® content
- Long-lasting impregnation
- 205 g/m²

NXT

- A further development of TOUGH
- · Especially colorfast
- Very resistant to friction
- Long-lasting impregnation
- 195 g/m²

The right membrane for your needs

Technology overview of Class 2 turnout gear



We are well aware of the different and specific needs of our customers and have the right combination of textiles to suit every requirement. We use GORE-TEX membrane technologies in the majority of our products. That's because they are permanently waterproof, reliably reduce heat stress and now feature GORE® CROSSTECH® functionality. Combined with breathable, high-quality materials, our products are your guarantor for the greatest possible protection, wearing comfort and a long service life.

---- GORE® PARALLON™ SYSTEM Greatest heat and fire protection ULTIMATE The unique membrane system with unsurpassed breathability coupled with excellent heat insulation -UITIMATE even in wet conditions ---- AIRLOCK® High freedom of movement and TITAN protection from heat and wet The spacer system ensures the air is reliably locked inside TITAN ULTIMATE, TITAN and offers the best flexibility available on the market. TOUGH HERO HERO NXT

----FIREBLOCKER

Low weight, optimum moisture regulation

This hard-wearing classic is one of the best-selling membranes of its kind. The clothing remains watertight and in form even despite frequent use. New: protection against contamination with blood and other bodily fluids.



TITAN ULTIMATE

RSK SWISSGUARD, HUNTER, SWISSHUNTER

TOUGH ADVANCE PROGRESS

NXT ADVANCE PROGRESS

GORE® PARALLON™ **SYSTEM**

Now available in two variants

We use the GORE® PARALLON™ system in our ULTIMATE coats and pants. It was developed specifically to reduce the hazards of heat stress burns especially where there is exposure to liquids such as firefighting water and rain. The lightweight, breathable and waterproof GORE® PARALLON™ system is a protective shield against severe heat and scalding that does not impinge on your agility.





Protected by GORE® PARALLON™

GORE® PARALLON™ 600 combines breathable heat insulation with GORE-TEX moisture barriers: It consists of two membranes with the thermal insulation between them. Its special design ensures high breathability: sweat is quickly transported away from the skin. Simultaneously, the system prevents moisture from penetrating from the outside. This keeps the insulating layer dry and reduces the risk of heat stress, scalds and burns. So you can keep going in tough conditions!

That extra bit of flexibility

Protective clothing should be as comfortable as possible to wear and pleasantly lightweight – regardless of how tough the going gets. This is why the innovative GORE® PARALLON™ 500 was launched on the market. It offers outstanding comfort and excellent flexibility combined with a very high level of protection.

The benefits of both materials at a glance:

GORE® PARALLON™ 600

Best heat protection

- · Highest thermal protection combined with very good breathability
- Reliable heat protection even in wet conditions
- Ensures consistently extended escape time!

GORE® PARALLON™ 500

Flexible and comfortable

- · One of the most lightweight solutions on the market
- Good flexibility
- Unique combination of excellent breathability, very good heat protection and wearing comfort

We use the following Gore products:

- GORE-TEX Moisture Barrier with GORE® CROSSTECH® Product Technology
- GORE-TEX Fireblocker with GORE® CROSSTECH® Product Technology
- **GORE-TEX Flameliner** with GORE® CROSSTECH® Product Technology
- GORE-TEX Moisture Barrier with GORE® CROSSTECH® Product & AIRLOCK® Spacer Technology

System

GORE-TEX Moisture Barrier with GORE® CROSSTECH® Product Technology & GORE® PARALLON™

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S-GARD®

Hubert Schmitz GmbH Aphovener Straße 75-77 52525 Heinsberg

Postfach 13 01 52517 Heinsberg Germany

T+49 (0) 2452 9909-0 F+49 (0) 2452 9909-20 info@s-gard.com

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