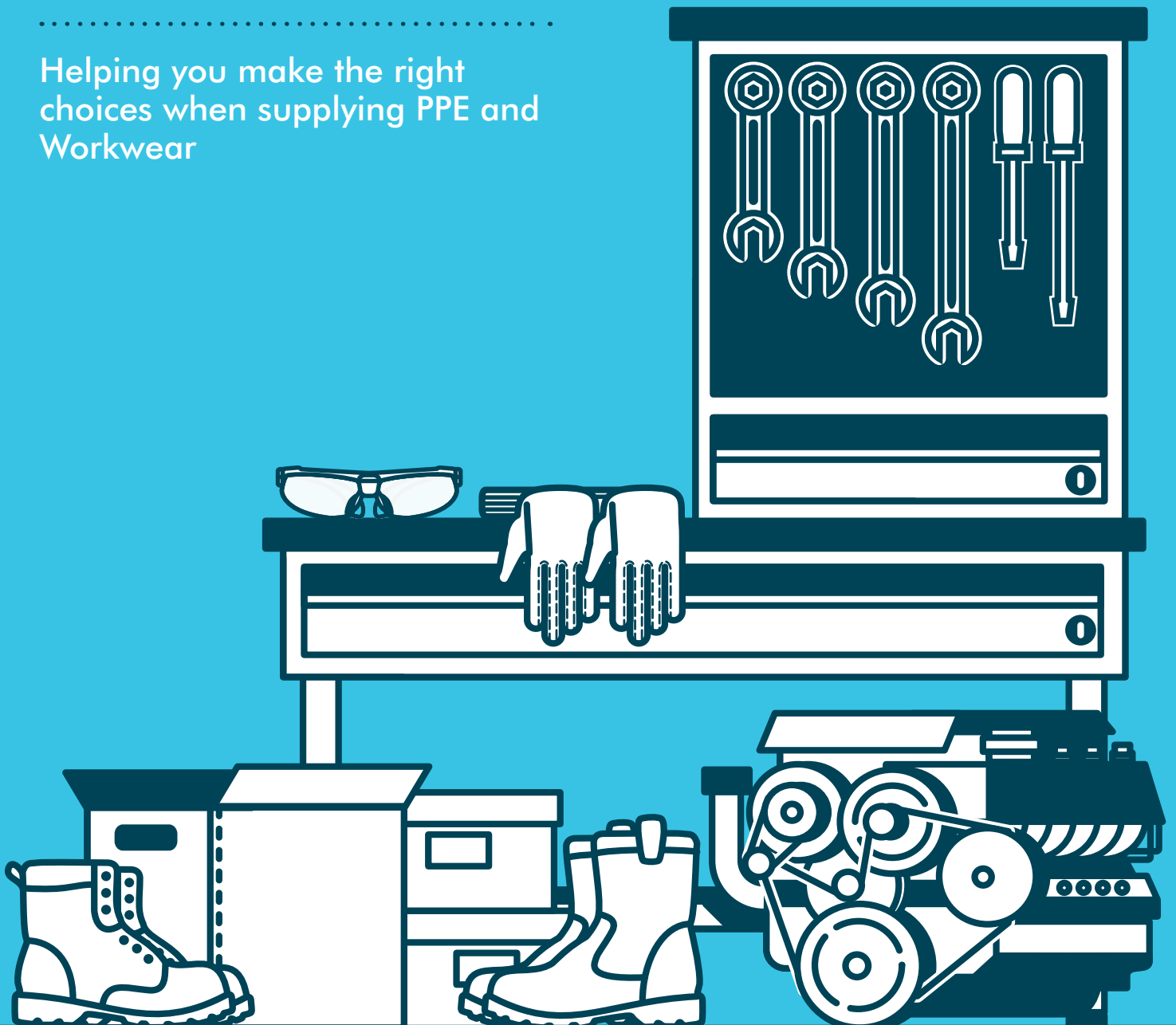


SUPERTOUCH®

How Fit is Your Kit?

.....

Helping you make the right
choices when supplying PPE and
Workwear



Content

How Fit is Your Kit?

Contents

Foreword	4
Section One Fit Kit = Fit Employees	5
Section Two How Fit is Your Safety Footwear?	7
Section Three How Fit is Your Safety Eyewear?	14
Section Four How Fit are Your Gloves?	18
Section Five Final Tips for Keeping PPE Kit 'Fit'	26



Defining PPE

For the purpose of this guide, Personal Protective Equipment (PPE) is defined as: all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety, and any addition or accessory designed to meet that objective.

- Personal Protective Equipment at Work Regulations 1992

Foreword

Written by:
Sangeeta Aeri

**Technical
Manager**
Supertouch®



The role of Personal Protective Equipment (PPE) should never be underestimated within the professional environment. However, with so many options available and a variety of suppliers to choose from, it can be difficult to know where to begin when choosing the right kit for the job.

For starters, when it comes to specifying and purchasing PPE products, the phrase 'one size fits all' simply doesn't apply. Every industry, from construction to the food sector, has specific requirements and guidelines to adhere to that will ultimately influence what kit is required to safeguard employees.

In our experience, PPE kit 'fitness' can be determined by a number of factors including size, performance, colour, weight, shape, hygiene standards and quality. Furthermore, there is a direct link between the 'fitness' of protective kit provided for employees and the overall 'fitness' of a business for reasons that are explored throughout this guide.

For starters, selecting and supplying protective workwear that is of a high quality, carries all the relevant certification markings and is generally 'fit' for purpose, will help keep employees comfortable, secure and well protected at all times. Getting this right can lead to fewer PPE equipment failures and a more productive workforce, as less time is spent dealing with the consequences of incorrect specification.

By comparison, getting this wrong can have far reaching effects on the health and wellbeing of employees and that of a business too. When inferior or non-compliant products make their way into employees' hands, feelings of discomfort during the working day can have a negative impact on productivity if left unchecked. Over time, this could also lead to a lack of employee confidence in their kit, meaning they may be more inclined to remove protective gear while at work, thus placing themselves at risk of injury from an accident as a result.

Furthermore, buying the correct PPE equipment will only go so far towards protecting employees and contributing to the smooth running of any organisation. If used incorrectly or inadequately maintained during the recommended lifespan, the performance of even the fittest products can be compromised over time, meaning businesses can often unintentionally risk the safety of their employees.

"Every industry, from construction to the food sector, has specific requirements and guidelines to adhere to"

To avoid PPE fails in the workplace, taking a 'top down' approach to correct PPE specification, whereby those who procure and distribute PPE equipment also take responsibility for educating and advising on proper maintenance procedures, is advisable.

By addressing all these elements at the start of the process, serious problems can be avoided further on down the line whether these relate to personal safety or business performance.

This guide has therefore been developed to provide advice on specifying the 'fittest' PPE products, as well as offering some essential tips for educating end users about how best to take care of equipment from the moment it is placed in their hands.



01

Section One Fit Kit = Fit Employees

.....

*Explaining the key to improving
safety performance within a
business*



What makes PPE Kit "Fit"?

The Personal Protective Equipment at Work Regulations 1992 are a set of guidelines created under the Health and Safety at Work, etc. Act 1974 (HSWA), which came into force in Great Britain on 1 January 1993. Within them, they place a duty of care on every employer to provide suitable PPE to employees who may be placed at risk to their health or safety while at work.

According to Regulation 4, PPE kit is only considered 'suitable' or fit if:

- It is appropriate for the risk or risks involved and the conditions at the place where exposure to the risk may occur
- It takes account of ergonomic requirements and the state of health of the person or persons who may wear it
- It is capable of fitting the wearer correctly, if necessary, after adjustments within the range for which it is designed
- So far as is practicable, it is effective to prevent or adequately control the risk or risks involved without increasing overall risk
- It complies with any relevant Community directive which is applicable to that item of personal protective equipment (e.g. CE marked)
- The Regulations also take the following areas into greater consideration: Compatibility; Assessment; Maintenance and Replacement; Accommodation; Information, Instruction and Training

Section One

Fit Kit = Fit Employees

Written by:
Ross Oates

NHBC
Health & Safety
Award Winner



Site safety is one of, if not the, most important aspects of working within the commercial and industrial sector. PPE is intrinsic to safe working practice on site – yet it can often be misused, misunderstood or missed-off completely. Ross Oates, Project Manager for housebuilder St Joseph (Berkeley Group) explains more.

From caps and coats through to goggles and gloves, PPE is an ever-present in some form or other on every working site in the UK. While you won't find many people blatantly disregarding a site's PPE requirements, in many instances there remains a disconnect between the specific requirements of the application in question, and the PPE provided to do the job.

For example, face-fit testing is a legal requirement for any work which mandates the use of masks, and the majority of sites are very on the ball when it comes to adequately sizing masks for their employees and contractors. However, the likes of gloves and coats are not held with the same reverence when it comes to sizing, despite all being safety-critical equipment.

For the likes of gloves, the approach has often revolved around finding the cheapest equipment which meets the minimum standards outlined by the appropriate risk assessment. Once identified, gloves are purchased – often in just one or two sizes – and distributed to the workforce. However, the likelihood that one or two sizes will be the perfect fit for everyone working on site is going to be slim. You'll find that for many, those sizes are likely to be too big or too small, which could impact their dexterity and, ultimately, their productivity. This is when people often take matters into their own hands and either disregard them entirely, or alter them (such as cutting off finger tips). This is also when accidents start to happen.

Therefore, perhaps the biggest area for improvement when it comes to promoting a safe culture on site is increasing awareness around the need to use quality, application-specific PPE. This can be applied at every level, from management through to site operatives.

"Perhaps the biggest area for improvement when it comes to promoting a safe culture on site is increasing awareness around the need to use quality, application-specific PPE."

In terms of how to realise this, I have found that inviting your PPE supplier on to site for some informal demonstrations is a really effective way of engaging employees and contractors. They can have the 'quid pro quo' with the team working on site and talk through the importance of task-specific PPE, emphasising that it is the best way to make life easier on site, rather than disregarding or modifying PPE themselves. This can allow employees and contractors to feedback on the challenges they face, and not only explore new options for PPE which can help remove any stumbling blocks, but also educate site managers and SHE personnel on what is really needed ahead of any future PPE replenishment.

Ultimately, engaging the workforce on a human level is the most effective way of improving site safety. Providing an honest explanation of why PPE needs to be worn is essential, but so too is making a concerted effort to provide task-specific PPE, in the appropriate size. Doing so will help keep accidents to a minimum, improve productivity, and promote a healthy and open culture between employers and staff.



02

Section Two How Fit is your Footwear?

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*Suitable footwear for each industry,
standards and best practice for
maintenance*

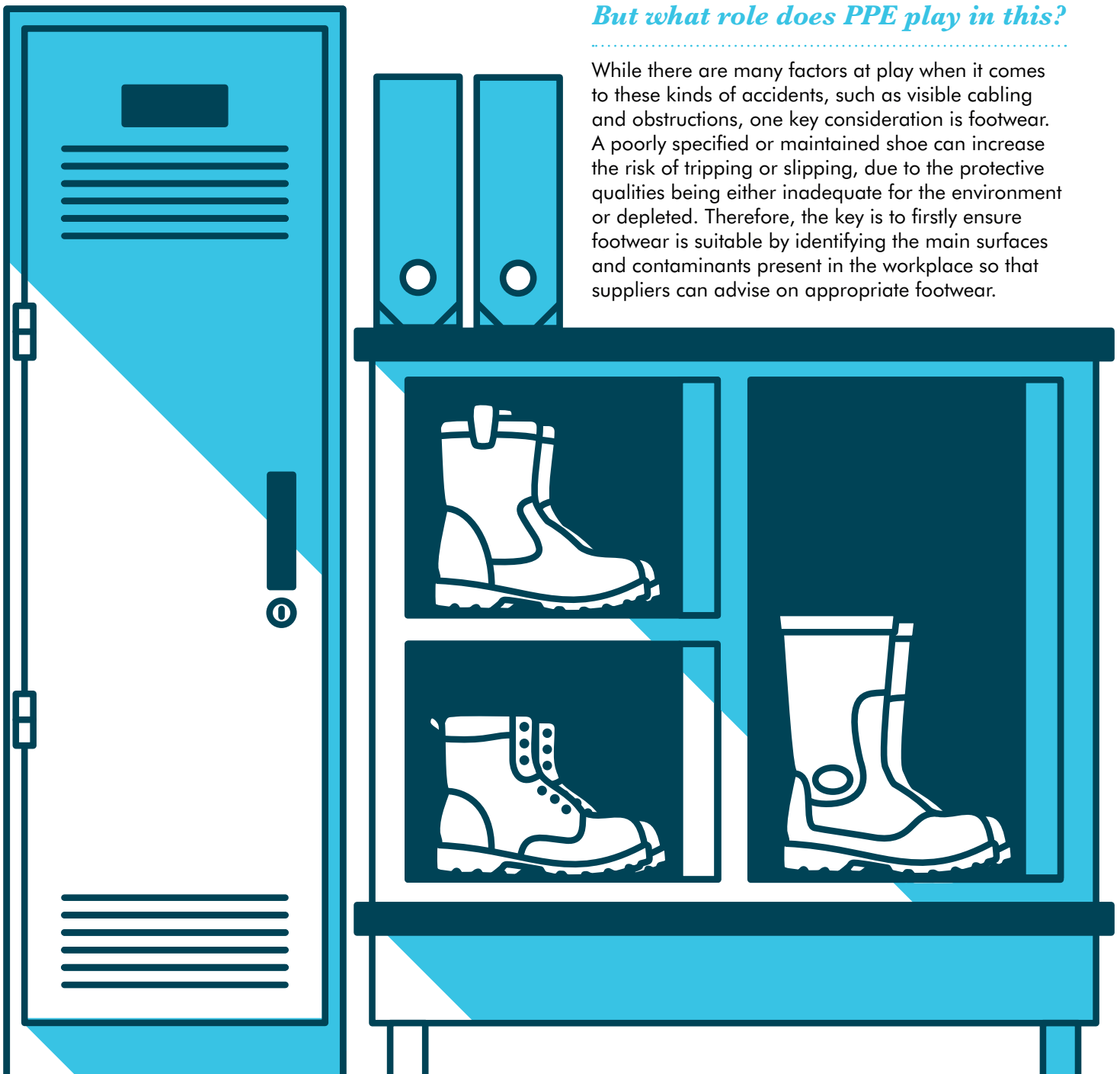
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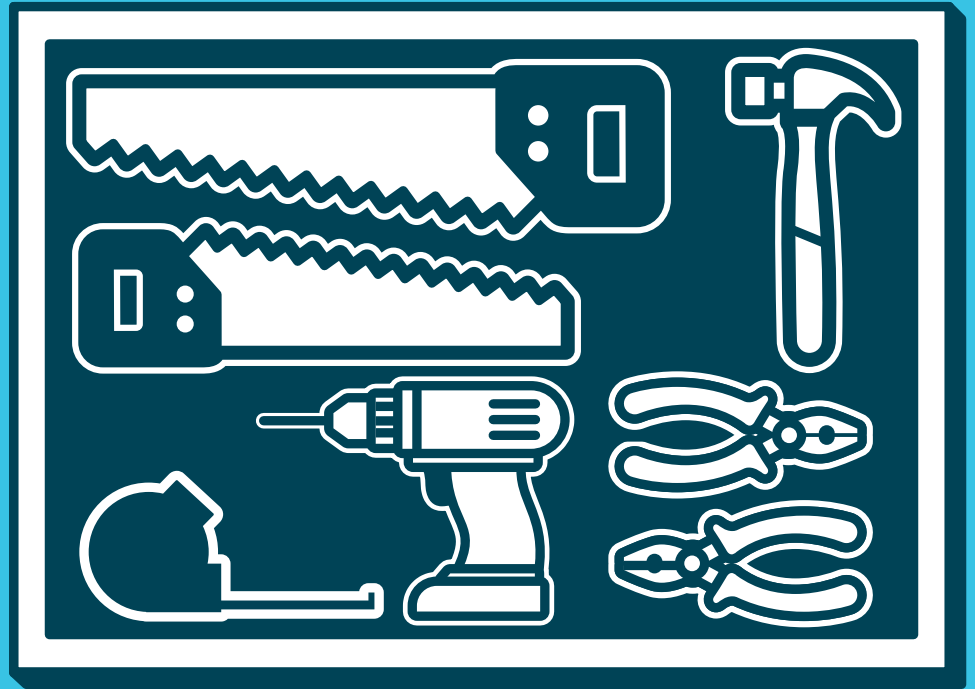
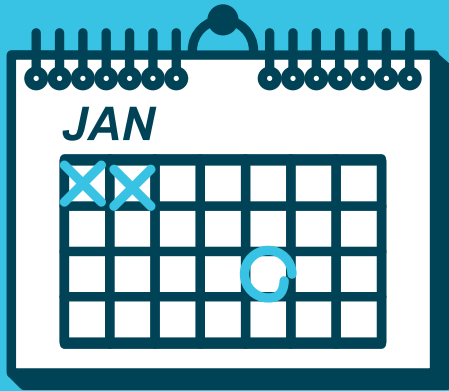
How Fit is your Footwear?

Despite being one of the most preventable workplace accidents, the Health and Safety Executive (HSE) found that slips and trips are the most common cause of injuries to employees. Research also conducted by the HSE found that these slips and trips cost UK businesses a staggering £500m a year in injury claims, investigation time, production delays and plant damage.

But what role does PPE play in this?

While there are many factors at play when it comes to these kinds of accidents, such as visible cabling and obstructions, one key consideration is footwear. A poorly specified or maintained shoe can increase the risk of tripping or slipping, due to the protective qualities being either inadequate for the environment or depleted. Therefore, the key is to firstly ensure footwear is suitable by identifying the main surfaces and contaminants present in the workplace so that suppliers can advise on appropriate footwear.





Section Two

How Fit is your Footwear? Proper PPE Pairing

Typically, the right footwear selection can be made by asking the same four questions regardless of industry, see the below infographic. Using the answers to these questions, you can start to understand the requirements of your footwear, then it's a case of finding the right match.

Four key questions when selecting safety footwear...

1. What is the common surface/terrain?

Safety boots and shoes feature different tread patterns and sole compounds specifically to achieve grip in a variety of environments from smooth concrete to uneven mud.

4. Wearer mobility

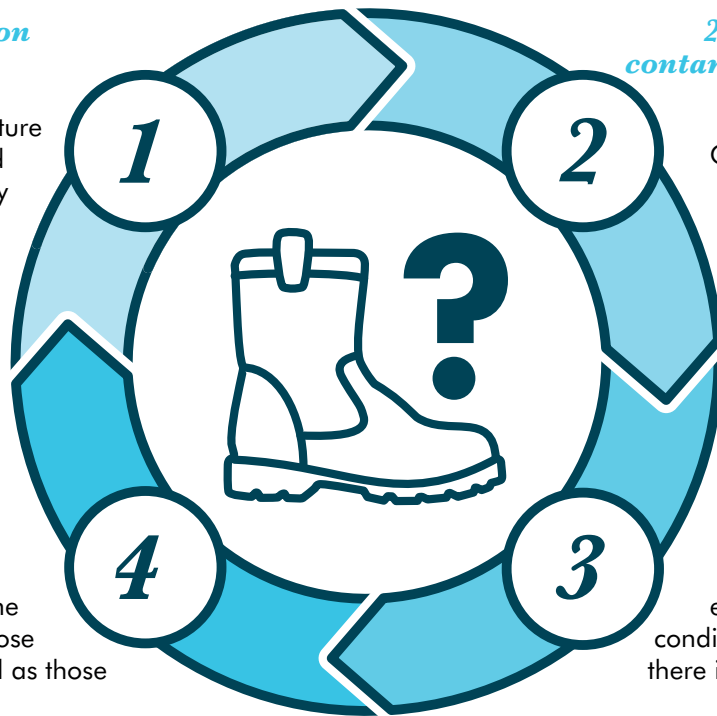
This has a great effect on worker wellbeing. There is footwear available to get the best performance out of those always on the move as well as those that are mostly static.

2. Are there likely to be contaminants to the normal surface?

Contaminants can come in a variety of forms dependent on the industry from natural fats in the food industry, to chemicals and oils in automotive.

3. What are the specific hazards associated with the workplace/task?

Carrying heavy objects? Flammable liquids at risk of electrostatic discharge? Cold conditions? Whatever the hazard, there is usually a boot/shoe to suit the situation.



Here are a few examples from different industries:

Automotive

Accidents in this industry can be serious, with workers frequently operating heavy machinery. A shoe like the **Aimont 24Bit Drake** is ideal. With its sporty look, they are popular with the end-user but also offer **state-of-the-art performance in anti-slip**. The **98GRIP** sole is a special PU compound and the outsole design features special transversal grooves, giving an outstanding performance of slip resistance on any surface, exceeding the requirements of SRA flat test by three times.



Aimont 24Bit Drake Safety Trainer

Food and Beverage

The risk of slips in a food preparation and processing environment is increased, given that it involves a number of liquids and oils. Having an adequate pair of **slip resistant shoes** here is therefore crucial in case of greasy surfaces. Supertouch®'s own **Food-X** slip on footwear has been designed with these needs in mind. With an oil-resistant anti-static sole and a water-resistant outsole, they keep the user protected and comfortable at all times. You can also wipe them clean after use and they feature an **anti-bacterial lining** for odour control and hygiene.



Supertouch® Food-X Slip On



Supertouch® Food-X High Top

Warehouse and Logistics

Those working in this industry could be walking up to 20km a day, so obtaining comfort as well as protection is important. Lightweight trainer style safety shoes are now commonplace in this industry, but not all deliver the same benefits. Aimont's **Vigorex** shoes include **anti-fatigue technology** that maintains healthy blood circulation and improves wearer wellbeing. The BASF Infinergy® material used in the Vigorex sole provides heightened shock absorption, and optimised comfort and cushioning. In fact, out of the top ten athletes in the last New York marathon, seven were wearing shoes fitted with Infinergy® sole technology. Anti-fatigue occurs due to a 'rebound effect' whereby the shoes dampen shock impact and return over 55% of the expended energy back to the wearer.



Aimont Vigorex Argon Safety Trainer

Construction

In an industry like this, which is high-risk and involves walking across varying terrains, footwear needs to offer **enhanced grip and stability**. **Aimont's Trucker Kompact Revenger** boot is perfect for these conditions with its exceptional slip-resistant Vibram sole and anti-abrasion toe cap with impact protection up to 200 joules. The cleated outsole is extremely protective against penetration and water and offers superior grip, helping to reduce the risk of accident.



Aimont Trucker Kompact Revenger Boot

Section Two

How Fit is your Footwear?

Setting the Standard

Once the shoe has been appropriately matched to the environment, checking the relevant protection standards and overall fit for the wearer should be the next consideration. To ensure only the fittest footwear is selected, there are a variety of safety classifications and codes to consider during the specification process. **BS EN ISO 20345:2011** is the current standard for safety footwear (used for general purpose) across Europe (EN) and sets out a series of tests for safety footwear which must be

passed to claim protection against a specific hazards or risks. A code can then be generated using the below abbreviations to help end users identify the right footwear for their requirements. An example is given below:

S3 SRC CI

This shows that this safety boot features a penetration resistant and cleated outsole, is insulated against cold and offers excellent slip resistance.

Abbreviations

Here are the **most common abbreviations** that are used to signify a boot or shoe is **fit for purpose**:

P	Penetration Resistance	WR	Water Resistance
C	Conductive	M	Metatarsal Protection
A	Antistatic	AN	Ankle Protection
I	Electricity Insulating Footwear	CR	Cut Resistant Upper
E	Energy Absorption of Seat Region	WRU	Water Penetration and Water Absorption Upper
HI	Insulation Against Heat	HRO	Outsole Resistance to Hot Contact
CI	Insulation Against Cold	FO	Fuel Oil Resistant Outsole

There are separate standards for **non-slip safety boots and shoes**:

SRA	Tested on ceramic tile wetted with sodium lauryl sulphate (a diluted soap solution)	SRB	Tested on steel with glycerol	SRC	Tested under SRA and SRB conditions
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To gauge the level of protection, here is an overview of the safety boot and shoe ratings applicable to the UK:

SB	Safety Basic (Toe Protection)
S1	Safety Basic + Closed Seat Region + Antistatic + Energy Absorption of the Seat Region + Fuel Oil Resistance Outsoles
S2	Same as S1 + Water Resistance of the Upper
S3	Same as S2 + Penetration Resistance of the Outsole + Cleated Outsoles
S4	Safety Basic + Closed Seat Region + Antistatic Properties + Energy Absorption of the Seat Region + Fuel Oil Resistance
S5	Same as S4 + Penetration Resistance + Cleated Outsole

Section Two

How Fit is your Footwear?

Maintenance Tips for Total Footwear Fitness

According to a survey by Supertouch®, 49% of workers only look to replace boots once they are 'worn out'. Worryingly, this could be dramatically reducing the protective qualities of the safety shoes, making them unfit for use and increasing the risk of injury.

We therefore recommend replacing boots if there is any damage to toe caps, fastening systems or once the sole grips have worn away by 50%. In order to ensure they are in tip-top condition during this time, it's important to also store and maintain them correctly.



1. Avoid sunlight

Avoid excessive exposure to sunlight, as this can cause materials to deteriorate. Leaving them on the dashboard of a car or van can compromise safety performance.



2. Store in a dry and airy place

Avoid storing boots and shoes in damp areas. This can cause the boots to develop mould and under these conditions, the material in the shoes can breakdown, which can in turn damage the protective properties, such as water-resistant performance. Keep them in a cool, dry area that is well-ventilated instead.



3. Water damage

If wet, remember to dry boots out thoroughly far from direct heat and remove the laces individually so they don't become brittle.



4. Check regularly

Conduct regular checks. Everyone wears shoes and boots differently, which can result in uneven wear. Over time, this can affect the sturdiness of the shoe, its slip resistance, electrical shock resistance and crucially the comfort. Look for tell-tale signs of deterioration such as dents, wear patterns on the sole, rips, or tears.

03

Section Three **How Fit is your** **Safety Eyewear?**

.....

*Exploring how to avoid eye
injuries in the workplace, eyewear
suggestions based on use and safety
eyewear standards*

Section Three

How Fit is your Safety Eyewear?

Workplace eye injuries can be life changing, yet despite safety eyewear being one of the of the most important pieces of PPE, a 'one size fits all' approach is often wrongly taken. Eyewear is compulsory for a wide-range of sectors, but poorly specified glasses can cause the user discomfort and ultimately lead to non-compliance. For any business, the objective should be to achieve 100 per cent conformity and in order to achieve this the closer you specify to the individual's needs, the greater the results.

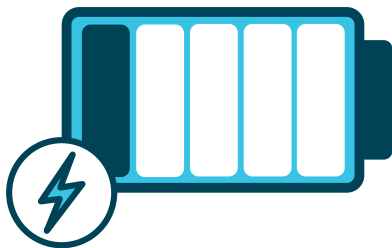
Common Eyewear Complaints and How to Avoid Them

Unfit eyewear can cause a host of related issues, such as reduced productivity due to impaired vision or serious injury if removed. However, this can be mitigated against if the right product is selected in the first place. Here are the top complaints with advice on how to avoid them:



1. Eye Strain

This symptom of poorly specified eyewear can be relieved by sourcing glasses with quality scratch resistance and the correct lens type. If safety eyewear has poor scratch resistance this will soon impair the user's vision and the muscles in the eyes will have to work harder to be able to see through the lens. Scratched lenses are also a concern as visibility is reduced so the wearer may not be able to see upcoming hazards.



2. Fatigue

Tiredness not only affects the individual but can also have an impact on the smooth running of an organisation as well. Overtired workers are less productive and far more likely to be involved in accidents that would ordinarily be avoided. This can be lessened through the use of quality panoramic eyewear, such as **Pyramex Ever-Lite**, which provides an unobscured field of vision. High tech coatings can also improve vision, enabling employees to work for longer periods without loss of concentration.



3. Headaches

Poor quality eyewear can cause headaches, which is a real concern for businesses as it can result in wearers removing their eyewear to relieve the pain. The weight, finish and fit of the safety eyewear is therefore key here. Softer materials around the nose and temples allow the safety eyewear to mould to the wearer's unique face shape and help to reduce pressure.

Section Three

How Fit is your Safety Eyewear? Safety Eyewear Specification Suggestions

To ensure correct specification and reduce the risk of the wearer removing their glasses, consider the following tips

1. Environment

First and foremost, start by assessing exactly what the risks are in the working environment. This will help to narrow down the potential eyewear options by determining whether you need to choose a goggle style, or a spectacle style. Depending on the application, a pair of safety glasses will provide a level of defence against foreign objects, featuring shatter-proof polycarbonate lenses and impact protection. However, if the job involves airborne dust, flying debris or splash hazards that create an increased threat to the eyes, a safety goggle with 360° shield protection is the logical choice or **Pyramex's Proximity** safety spectacle.



Pyramex Proximity Safety Spectacle

2. Lens Colour

The type of working environment will also have an influence on what lens colour is most appropriate. This is an aspect which can often be overlooked. For example, for those working indoors all day, a clear lens is the obvious choice, with 92 per cent of visible light transmitting through them.



However, in areas such as construction, where workers may frequently be moving from indoors to outdoor settings, eyewear with specialist Indoor and Outdoor (I/O) lenses, such as **Pyramex's Fyxate** I/O glasses, are likely to be most suitable. These types of lenses are designed to protect against UVA/UVB rays and allow the eyes to adjust between indoor and outdoor lighting conditions without removing the safety eyewear. Alternatively, where there are low levels of light, amber lenses can help by enhancing the contrast. In comparison, grey or silver mirrored lenses are the best option for reducing the glare of bright sunlight in outdoor applications.



Pyramex Fyxate Safety Spectacle

Section Three

How Fit is your Safety Eyewear?

Safety Eyewear Specification Suggestions

3. Lens Coating

Also explore the different types of lens coatings available. Most safety spectacle lenses have an anti-scratch coating, but the scratch resistance of different coatings varies widely. It is worth considering the specification of higher quality coatings to prolong their life, helping to prevent non-compliance. Glasses with anti-fog coatings, such as **Pyramex's H2Max**, are also essential for those exposed to high humidity working conditions or moving between hot and cold environments and will stop workers moving the glasses to the end of their nose to see better, which puts them at risk of foreign bodies entering the eye. The high-performing **H2Max** prevents fogging for up to 30x longer than its competitors and when placed 40cm away from steam, resists clouding for up to an hour.



H2Max Anti-Fog Lens

Pyramex Venture 3 Safety Spectacle

Common Safety Eyewear Standards

Most eyewear is commonly covered by the EN 166 standard. This covers all the basic requirements for safety eyewear and will be marked on the lens and frame accordingly.

In addition to EN 166, there are other standards to be aware of that cover areas such as sun glare, ultraviolet and infra-red protection. Safety eyewear for specialised applications, such as welding, will have different classifications too.

EN 166 Basic specifications

EN 167 Optical test methods

EN 168 Test methods other than optical

EN 169 Welding filters

EN 170 Ultraviolet filters

EN 171 Infra-red filters

EN 172 Sun glare filters for industrial use

EN 175 Welding work equipment

EN 207 Glasses for laser radiation protection

EN 208 Glasses for adjustment laser systems

EN 379 Specification concerning welding filters

04

Section Four How Fit are Your Gloves?

.....
*Explaining the safety standards
associated with safety gloves*

Section Four

How Fit are Your Gloves?

The workplace can present many hazards for unprotected hands. From exposure to chemicals, cuts and burns, serious damage can occur if the correct glove is not worn at all times to protect skin from harm.

Unsurprisingly, no single glove can provide optimal performance for every work situation. It is therefore important to carefully assess the risks involved with each task employees are required to carry out before specifying a glove that offers specialist protection and meets the required safety standards.

As an aid to selection, the following table provides a quick overview of the main standards applicable to gloves of all types - from leather, dipped, cotton and mixed fibre to rubber, cut and chemical resistant.

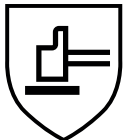
Common Safety Glove Standards

EN 420

This standard ensures that gloves are comfortable to wear & safe to use. It covers length, sizing, dexterity, pH value and Chrome VI levels (leather gloves only). All CAT II and CAT III gloves comply with this standard.



EN 374 parts 1-2 - This symbol denotes compliance with parts 1-2 of standard EN 374. These gloves have passed air and water leak tests and are suitable for use with micro-organisms.



EN 388 - This standard relates to gloves that are intended for general industrial usage. The standard covers the abrasion, cut, tear and puncture and impact resistance of the glove.



EN 374 parts 1-3 - This symbol denotes compliance with the standard EN 374 parts 1-3. The standard specifies the ability of a glove to protect against chemicals and/or micro-organisms.



EN 511 - This standard denotes that the gloves offer cold protection. The standard tests the convective cold & contact cold insulation properties offered by the glove.



EN 374 parts 1-3 (low level chemical use) - The gloves have been tested in accordance with EN 374 parts 1-3 & are considered to be waterproof gloves offering low level chemical protection.



EN 407 - This standard refers to protection against thermal hazards. The testing covers the burning behaviour, heat resistance and molten metal splash resistance of a glove.



Plastic Materials and Articles in Contact with Food Regulation EU 10/2011 - This symbol denotes that this single use item is suitable for use with food.

EN 12477

Gloves carrying EN 12477 are suitable for use in manual metal welding, cutting and allied processes. The standard draws on EN 420, EN 388 and EN 407.

EN 455

This standard refers to "Medical Gloves for Single Use". Testing includes freedom from holes, sizing & strength, biological evaluation and shelf life testing.

Section Four

Cutting Through: The Latest EN 388:2016 Standard Explained

In November 2016, the EN388 standard was updated to offer more consistent testing and as a result of the development of numerous new materials.

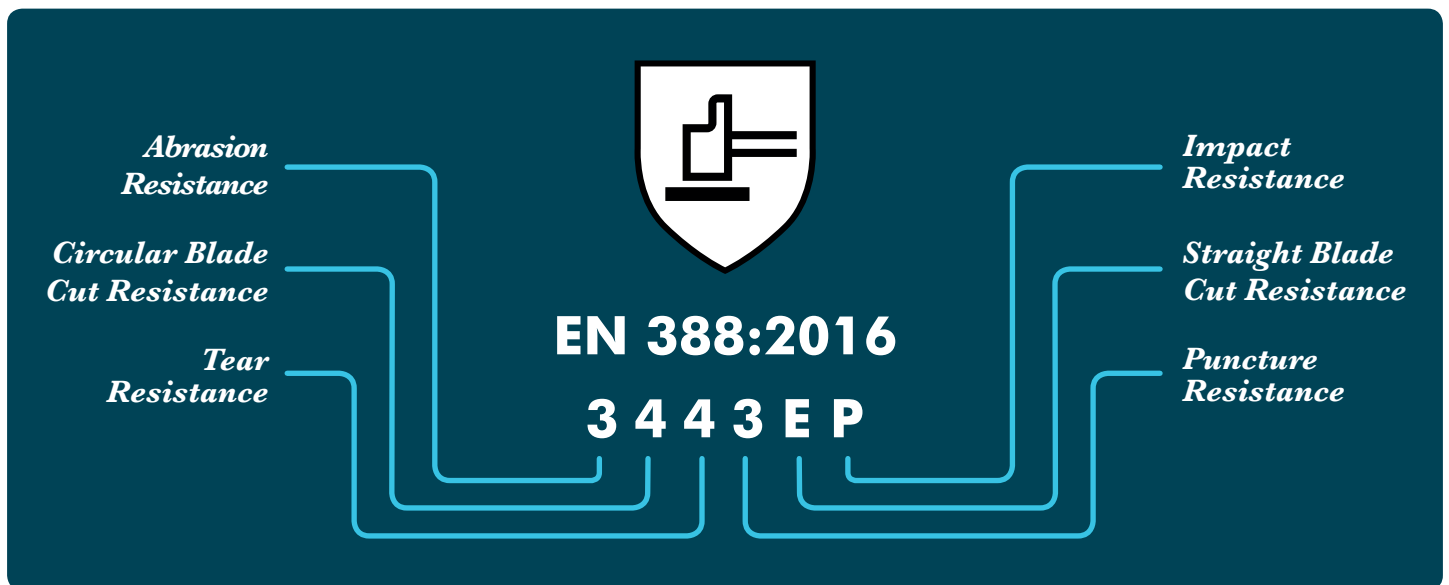
This piece of legislation provides information about the mechanical resistance of safety gloves, based on abrasion, cut, tear and puncture resistance. It also tests impact protection.

It is easy to spot gloves that conform to the EN 388 standard, as they will be marked with a shield up to six (was previously four) figures will be featured underneath the shield, which denote the level of protection that particular product will offer according to EN 388.

Note: the higher the number, the better the protection. If a glove was not tested for a certain category, it may be marked with an 'x' instead.

"This piece of legislation provides information about the mechanical resistance of safety gloves, based on abrasion, cut, tear and puncture resistance. It also tests impact protection."

How to read these markings



EN388:2016 provides us information as above: Abrasion Resistance, Circular Blade Cut Resistance, Tear Resistance, Impact Resistance, Straight Blade Cut Resistance & Puncture Resistance.

Abrasion Resistance: Rated from 1 - 4 - How well do the gloves resist abrasion? If you're handling bricks, rocks and rough materials, you'll want this number to be high. Most of our gloves have high abrasion resistance, even the **PG101**, one of our lightest gloves.

Coupe Test Cut Resistance: Since the latest revision, straight blade cut resistance has also been added, which we will talk about below. Ranging from 1 - 5, the higher the greater the cut resistance! Our **PG510** dual layer nitrile gloves have a great cut-resistance with a rating of 4.

Tear Resistance: Ranging between 1 - 4. If you're looking for a durable glove for use in demanding environments, check out this number! Our **PG330** features high breathability & dexterity with a tear resistance of 4!

Section Four

Cutting Through: The Latest EN 388:2016 Standard Explained



Pawā® PG330 Ultralight Safety Gloves

"It's essential that you audit your tasks and hazards before purchasing your next pair of safety gloves. By assessing, you can protect yourself and your team"

Puncture Resistance: Again, ranging from 1-4, essential to consider if you're working with the likes of needles, syringes and any waste-work. The **PG510** offering level 4 puncture resistance, is a perfect choice.

TDM-100 Cut Resistance: As discussed overleaf, this updated cut resistance test offers a more 'real-world' analysis of a glove's resistant to sharp edges. The new test is rated from A to F (with F offering the most protection). An X may also be listed in the 5th position if a glove has not been tested for a cut rating.

There could also be an 'X' – this means that the glove has not been tested for this hazard.

Straight Blade Cut Resistance

Performance Level	A	B	C	D	E	F
Newton	≥2	≥5	≥10	≥15	≥22	≥30

The Pawā® **PG520** has an ISO cut level E while the **PG550** achieves the highest rating, level F.

Impact Resistance: Typically, one to check for if you're working with heavy objects or there's a risk of your hands being trapped. This is currently an optional test. There's only one rating for this – P – this means the glove has passed the test.

It's essential that you audit your tasks and hazards before purchasing your next pair of safety gloves. By assessing, you can protect yourself and your team. Browse our range of **safety gloves** and feel free to **contact us** for any advice or queries.

Section Four

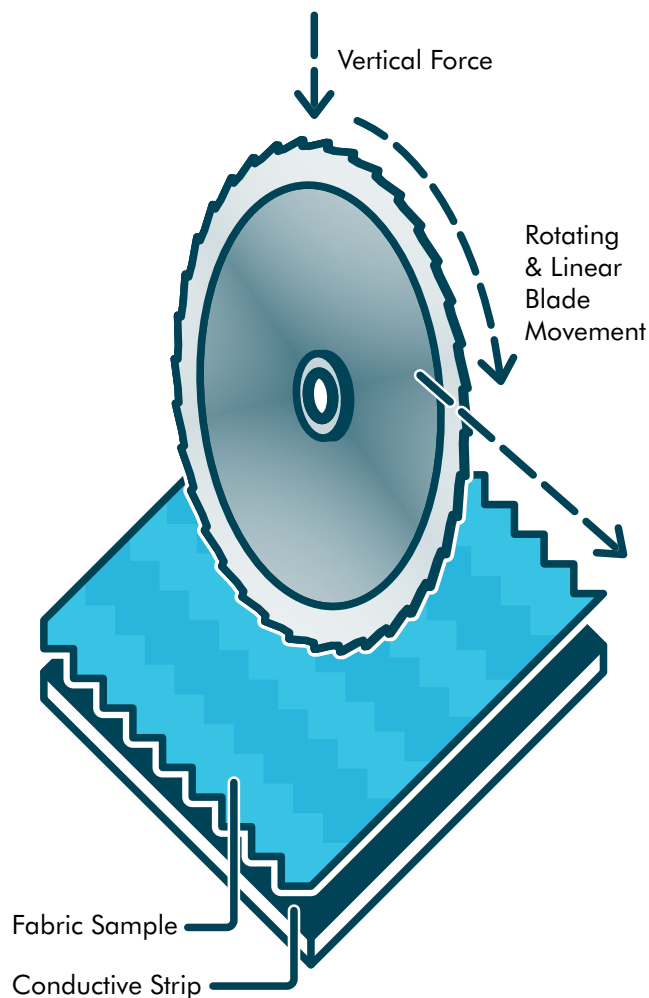
Cutting Through: Why has EN388 added another cut test?

By April 2019 all cut rated gloves need to be tested using the TDM-100 test introduced in the 2016 update of the Standard. But why?

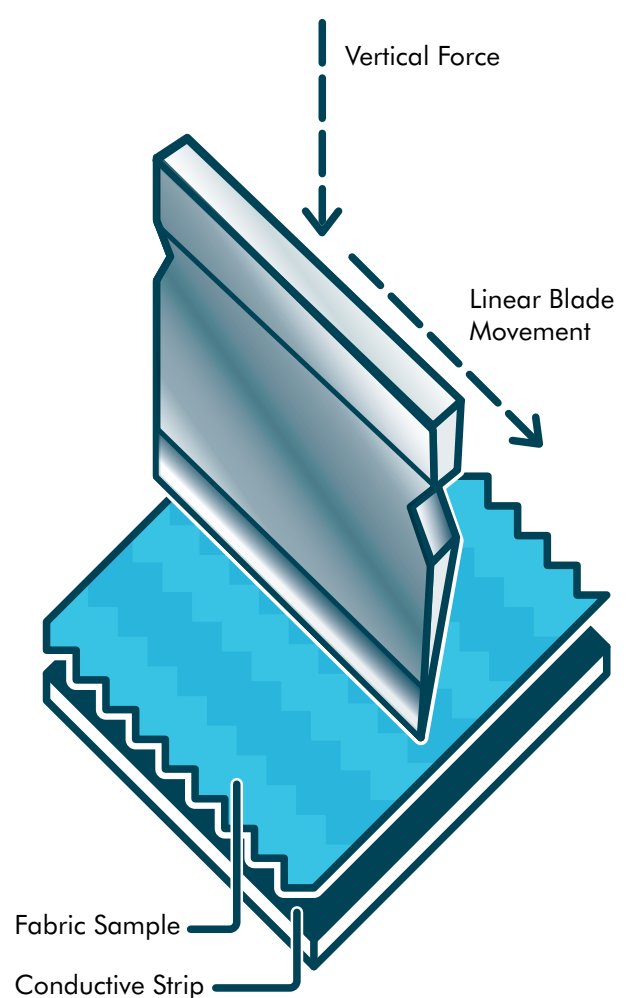
Over the last decade, anti-cut fibre technology has advanced to the point where the blade used in the coupe test (see graphic below) is blunted leading to inconsistent readings. The TDM-100 test is closer to 'real-world' situations and measures the amount of force required for a new, straight blade to cut through the glove liner material at a constant speed of 2.5mm/s over a distance of 20mm.

Some manufacturer's cut level 5 gloves are only achieving a cut level C in the EN ISO 13997:1999 TDM test which could mean workers are under-protected. Describing the cut rating of a glove as '5C' could be misleading, so Supertouch® is now leading its glove specification based on the newer standards and will work with end users to ensure specifiers are educated and select the right glove for the job.

Coupe Test



TDM-100 Test



Abrasion		Cut (Coupe)		Tear		Puncture		Cut (TDM-100)		Impact	
Based on the number of cycles required to abrade through the sample given.		Based on the number of cycles required to cut through the sample at constant speed.		Based on the amount of force required to tear the sample given.		Based on the amount of force required to pierce the sample with a standard-sized point.		Based on the amount of force required to cut through the sample.		Intended for gloves designed for protection against impact. For that reason, there are x3 ratings given.	
Cycle	Rating	Factor	Rating	Newton	Rating	Newton	Rating	Newton	Rating	Impact Protection	
8000	4	20.0	5	75	4	150	4	2 - 4.9	A	Passed	P
2000	3	10.0	4	50	3	100	3	5 - 9.9	B	Failed	F
500	2	5.0	3	25	2	60	2	10 - 14.9	C	Not Tested	X
100	1	2.5	2	10	1	20	1	15 - 21.9	D		
<100	0	1.2	1	<10	0	<20	0	22 - 29.9	E		
		<1.2	0					30+	F		

Which EN388 Cut Level should you choose?

EN 388 Cut Level A	2 Newtons = 203 grams to cut	Ideal for: Light material handling, small parts assembly without sharp edges.
EN 388 Cut Level D	15 Newtons = 1529 grams to cut	Ideal for: Light duty metal handling, appliance manufacturing, glass handling, electrical work, carpet installation.
EN 388 Cut Level B	5 Newtons = 509 grams to cut	Ideal for: Packaging, warehousing, light duty general handling.
EN 388 Cut Level E	22 Newtons = 2243 grams to cut	Ideal for: Metal stamping, sheet metal handling, glass handling, automotive assembly.
EN 388 Cut Level C	10 Newtons = 1019 grams to cut	Ideal for: Light duty metal handling, Light duty glass handling, plastic manufacturing, general handling.
EN 388 Cut Level F	30 Newtons = 3059 grams to cut	Ideal for: Heavy duty metal stamping, metal recycling, food processing, pulp and paper recycling.

Section Four

Cutting Through: The Cost of Protection

At the time of writing, market insight shows that butadiene, a raw material which accounts for over 60 per cent of the cost of Nitrile gloves, has been increasing in price due to a reduction in manufacturing output and tightening supplies.

This has led to significant price increases of nitrile disposable gloves in the UK market. However, real savings can be realised through not over specifying disposable Nitrile gloves where a suitable alternative would suffice.

When purchasing teams specify disposable gloves for large production facilities, one of the most common mistakes made is ordering mass quantities of the same product for all workers across the line. For many businesses, this could be a completely unnecessary expenditure.

Initially it may seem easier and simpler to specify and order just one type of disposable glove, however it's important to stop and consider 'does everybody require the same, or am I over specifying for large parts of the operation?' The decision should ultimately be made based on the level of protection each job requires.

The cost saving potentials here are great. In the food industry for instance, simple food handling tasks, where glove usage is to protect the product, does not require the same robustness as those working further up the production line manhandling bulky raw meat.

Careful and accurate specification in these types of scenarios can mean the difference between specifying something like Supertouch®'s food approved Ultra Nitrile gloves, or the more robust and heavy-duty protection of standard Nitrile gloves.

In addition to cost savings, Ultra Nitrile gloves offer a number of benefits, such as enhanced dexterity through a close fit and increased comfort, ultimately increasing productivity. Ultra Nitrile gloves are also far less brittle than a vinyl glove and come in a variety of colours, which is ideal for colour coding in production.

Ultra Nitrile is also more environmentally friendly, for those who are conscious about the carbon footprint of their plant. Thanks to its thin and lightweight qualities, less packaging is required, with 2000 gloves packed into each dispenser.

By optimising purchasing and not specifying from a 'one style suits all' perspective, not only could businesses save money, workers are better equipped to do their job with enhanced productivity.

Ultra Nitrile Gloves

- Improved dexterity with great stretch
- Alternative to vinyl
- Lightweight and fine
- Abrasion resistant
- Latex and powder free
- Food approved





05

Section Five Professional Tips for Keeping PPE 'Fit'

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*How to properly take care and
maintain employee PPE*

Section Five

Professional Tips for Keeping PPE Kit 'Fit'

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As alluded to throughout this guide, choosing the correct kit for business requirements needs careful consideration. However, the hard work that goes in to getting this right in the first place can be undone if PPE clothing and equipment it is left uncared for after being handed over to the end user.

Over time, if left unchecked and uncared for in accordance with manufacturer instructions, the protective qualities of footwear, eyewear, gloves and clothing can degrade. If this happens, even the fittest PPE kit can become 'unfit' to wear and the end user may experience discomfort or even be placed at risk of an accident while at work.



The Health and Safety Executive, in its document: **Personal Protective Equipment (PPE) at Work: A Brief Guide**, highlights five vitally important points related to using and distributing PPE to employees. These include:

1. Instruct and train people on how to use it
2. Tell them why it is needed, when to use it and what its limitations are
3. Never allow exemptions for those jobs that 'only take a few minutes'
4. If something changes on the job, check the PPE is still appropriate – speak with your supplier, explaining the job to them
5. If in doubt, seek further advice from a specialist adviser

While monitoring and maintaining employee equipment can be a time-consuming job, this is negligible when compared to the cost of buying new equipment due to lack of upkeep and improper cleaning.

Regular safety checks are therefore essential for spotting gradual degradation, which can often occur purely as a result of poor maintenance and storage by either the employer or employee. In addition to monitoring the physical condition of workwear, ensuring employees are making the right PPE selection for their specific job is important too.

For example, some companies may offer a variety of gloves for use in different working environments. This could be because certain employees may require cut resistant gloves for handling glass and metal, whereas others may require a wet and dry grip. If the wrong gloves are collected and used due to lack of employee education, they can be ineffectual within the role and potentially pose an increased health and safety risk.

Under the PPE at Work Regulations 1992, responsibility for the provision and maintenance of safety wear is placed on the employer. Education within the workplace is therefore always advisable to help employees understand what 'fit kit' looks like and how best to keep it in optimum condition, just as they would with their own clothing. Carrying out regular spot checks should therefore form part of day-to-day operations too.

If equipment is only used on site, correct storage facilities should be provided. However, if employees come to work wearing their own kit or are responsible for purchasing their own safety clothing (as is often the case in the construction sector) maintaining standards can prove more challenging but are nonetheless important.

By taking a 'top down' approach to correct PPE specification, whereby those who procure and distribute PPE equipment also take responsibility for educating and advising on proper maintenance procedures, serious problems can be avoided further on down the line, whether these relate to personal safety or business performance.

In summary, PPE kit 'fitness' is directly linked to employee 'fitness', which has a huge impact on the operational 'fitness' of any business. Where workforces are well protected by correctly specified PPE equipment, productivity follows.

We've got you covered.

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All products are subject to availability.

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