

# **Volume 1 Security Catalogue 2018/19**



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# **LEVEL OF RANGE**

### **Economy**

Economy products refer to a segment of products that offer exceptional value in relation to price while complying with relevant quality and safety specifications. Economy products are manufactured to offer value and utility at the most competitive price.

### **Intermediate**

Intermediate products refer to a segment of products that strike a balance between high quality engineering and good value. This range is designed to be highly usable and durable and manufactured to meet the requirements of most industries and customers.

### Premium

Premium products refer to a segment of products that are of high value due to the unique design and engineering used to create a superior quality product. Premium products are manufactured specifically to emphasise their exclusivity or rarity.



# **Head Protection**

# Introduction

### **HEAD INTRODUCTION**

At Select PPE, through our network of premium suppliers, we offer a range of safety helmets and head protection. These safety helmets and accessories offer secure and comfortable protection. Our range of head protection features elegant, lightweight shell designs, adjustable fittings and comfortable padding. The range of ratchet-adjustable designs use the natural shape of the head to create a firm but comfortable fit, guaranteeing the user a superior level of comfort throughout the day.

### HARD HAT

A hard hat is a type of helmet predominantly used in workplace environments such as industrial or construction sites, to protect the head from injury due to falling objects, impact with other objects, debris, rain, and electric shock. Hard hats could be combined with face protection and hearing protection.

### **EN STANDARDS**

EN 397	The standard industrial safety helmet standard
EN 14052	The standard for high performance industrial safety helmets
EN 12492	The standard for mountaineers
EN 50365	The standard for electrical insulation

### **BUMP CAP**

A bump cap is a lightweight hard hat using a simplified suspension or padding and a chin strap. Bump caps are used where there is a possibility of scraping or bumping one's head on equipment or structure projections, but are not sufficient to absorb large impacts, such as that from a tool dropped from several stories.

### **EN STANDARDS**

EN 812	The standard for industrial bump caps

### **Features**

- Cap with Badge
- Logo printed or embroidered

### **SECURITY CAP**

Code: RETC159, RETC158

Colour: **Black / Navy** | Size: Universal

### **Technical data:**

• Material - Cotton

TULLE BASEBALL CAP



### **Features**

- Baseball cap with metal clip
- Head circumference adjustment

TULLE BASEBALL CAP Code: **HCOBL-0026-CE-000** Colour: **Various** Size: Universal

• Red: HCORE-0025-CE-000 • Green: HCOGR-0024-CE-000

• White: HCOWH-0027-CE-000

### **Technical Data:**

• 100% Cotton





### TAHR BASEBALL REFLECTIVE CAP

Code: **HCOYE-0029-CE-000** 

Colour: **Yellow / Orange** | Size: Universal

### **Technical Data:**

- 60% Cotton
- 40% Polyester

RIOM BASEBALL CAP BLACK 100% BRUSHED COTTON



• Baseball cap with reflective accessories and Velcro head circumference adjustment

RIOM BASEBALL CAP BLACK 100% BRUSHED COTTON

Code: **HCOBL-0028-CE-000** Colour: **Black** | Size: Universal

### **Technical data:**

• 100% cotton



# Notes



# **Eye Protection**

Every year, thousands of people suffer from eye injuries in the workplace. Of these injuries, the vast majority may have been avoided if suitable eye and face protection was used. Through our network of premium suppliers as well as our House Brands, Select PPE offers protectie eye and face solutions designed to not only fulfil the primary function of effective protection, but also to make the products comfortable and suitable for every user.

# WHAT TYPE OF PROTECTIONS SHOULD YOU CHOOSE? SAFETY SPECTACLES:

Protection for eyes against:

- Dust and fine particles
- Low energy impacts (mechanical resistance for an impact up to 45 m/s).
- Harmful rays: Ultraviolet (UV) / Infrared (IR).



### **GOGGLES**

Protection for eyes against:

- Medium energy impacts (mechanical resistance for an impact of up to 120 m/s).
- The risk of intrusion by dust, fine particles or harmful chemical products (liquids, sprays, gas).
- The risk from molten metal projections.
- Harmful rays (UV / IR).



### **FACE SHIELDS:**

Protection for the eyes and face against:

- Medium and high energy impacts from sparks or solid bodies, plus projections (liquids, molten metals) that can cause generalised facial injuries.
- Hazards from electric arc discharges caused by short-circuits.
- Harmful rays (UV / IR).



### European Safety Standard for Personal Eye Protection: EN166: 2001

European standard, applying to all types of individual protection of the eye which protects from hazards likely to damaged the eye, expect for nuclear radiation, x-rays, laser emissions and infrared emitted by low-temperature sources. Does not apply to eye protection for which seperate standards exist (e.g. anti-laser eye protection, sunglasses for general use).

### American National standard - Personal Eye and Face Protective Devices: ANSI/ISEA Z87:2015

This standard, provides minimum general requirements, test method, selection, use and maintenance of eye and face protection devices.

2 levels of protection:

Z87 marking = "Basic Impact"

Z87+ marking = "High Impact"

	RISK TO THE EYE FROM HARMFUL RADIATIONS		
Zone	Wave Length	Environment	Eyesight damage
UV-A	215 - 380mm	Outdoor work	Eye fatigue, Partial blindness, Cataract, Sunshine
UV-B	280 - 315mm	Sunlight, Industrial environment	Cataract, Welder Flash, Arc Flash
UV-C	100 - 280mm	Industrial environment, Welding	Cornea or Crystalline Lesions, Loss of eyesight
Blue-Light	400 - 480mm	Industrial environment, computer work, Outdoor work	Retinal Lesions, Loss of eyesight, Blurring degeneration (age), Retinitis pigmentosa
Infrared	780 - 1400mm 1400 - 2000mm	Electric welding, Molten work: Glassmaking, steel production Microwave processes, Sunlight	Retinal Lesions, Blurring degeneration (age), Retinitis pigmentosa, Corea or Crystalline Lesions

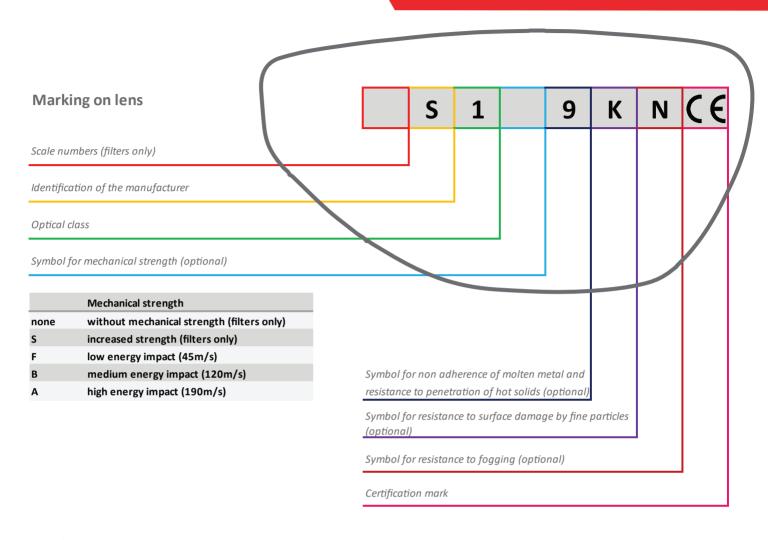
Coarse dust particles

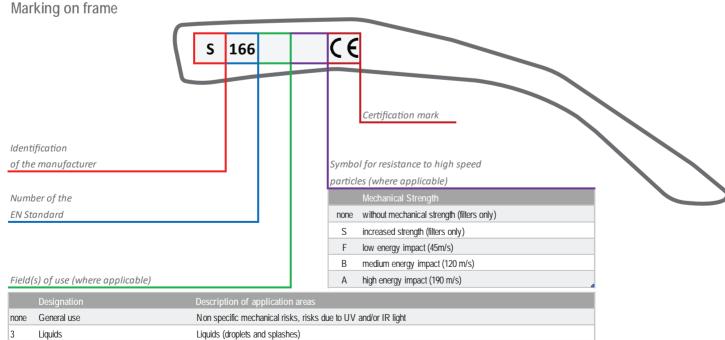
Gas and fine dust particles

"Molten metal and hot solids"

Short circuit electric arc

# **Eye Protection**





Dust with >5µm grain size

Gas, vapour, mist, smoke, and dust with < 5µm grain size

Electric arc due to short circuit in electrical equipment

Splashes of molten metal and penetration of hot solids

# **Eye Protection**

# Introduction

### LENS TINTING AND COATINGS:

At Select PPE, through our network of premium suppliers, there are many lens colours, or tints available for your specific application.

### The benefits and limitations of each shade

Some shades, such as orange, blue or purple, will allow more light in, which will blur colour perception. Therefore, those tints are not recommended for workers who must work with colour codes or traffic lights. On the other hand, amber, smoke or espresso lenses will reflect colours more accurately.

For outdoors, smoke shades are preferable, as well as mirror silver or blue. The last two protect against excessive glaring, UV rays and reduce reflection. Espresso lenses offer basically the same benefits, in addition to improving depth perception and reducing eye fatigue.

As for amber lenses, they improve contrast and are particulary efficient in low light. However, they are not designed for outdoor use.

Neon lighting is known to cause eye fatigue among workers. A blue-tint lens cancels yellow light, in addition to having a very pleasant effect on the human eye.

### Coloured lenses, beyond eye protection

Many work accidents are caused by visual perception deficiency. Some tasks are riskier than others. For example, think about forklift operators driving from one building to another. The indoor / outdoor mirror lens has been specifically designed for them, as it reduces the changes in light intensity.

A hand, a foot or even a life could be saved with an improved depth and contrast perception when using different lens shades.

### **Lens Tint Chart**

Lens Colour	Application	Glasses Type
Clear Lens	Impact Protection	E S
Black/Grey Lens	Outdoor use Glare protection	
Amber Lens	Outdoor use in low-light situations Enhances contrast	
Orange Lens	Meant for low-light use Offers a high contrast	9
Blue Lens	Indoor use Offers a high contrast for situations where excessive sodium vapour or yellow light is present	
Mirrored Lens	Reduce glare	
Polarised Lens	Polarised finishes on lenses block intense reflected light Reduce eye-fatigue caused by glare	

# **CLEAR BASIC SPECTACLE WITH ORANGE TEMPLES**



### **CLEAR BASIC SPECTACLE WITH ORANGE TEMPLES**

Code: **P8001 IMP** 

Colour: Orange | Size: Universal

### **Features**

- Indoor / Outdoor lens
- Comfort and design without hassle
- Soft nose bridge for comfort
- Soft side arms
- Maximum wearer comfort
- Comes standard with a spectacle cord

### **Specifications:**

- Anti-fog coatingAnti-scratch coating
- Increased robustness
- High resistance to particlesLow energy impact
- Optical class 1
- Standard: EN166 Approved



### INDOOR/OUTDOOR SPECTACLE WITH **BLUE**

**TEMPLES** 

Code: **P8002 IMP** 

Colour: Blue / Clear | Size: Universal

### **Features**

- Indoor / Outdoor lens
- Comfort and design without hassle
- Soft nose bridge for comfort
- Soft side arms
- Maximum wearer comfort
- Comes standard with a spectacle cord

### **Specifications:**

- Anti-fog coating
- Anti-scratch coating
- Increased robustness
- High resistance to particles
- Low energy impact
- Optical class 1
- Standard: EN166 Approved



**MOSI SPECTACLES POLYCARBONATE CLEAR LENS** 

**ANTI SCRATCH** 



### MOSI SPECTACLES POLYCARBONATE CLEAR LENS **ANTI SCRATCH**

Code: IPCCL-0015-PR-000

Colour: Black / Yellow | Size: Universal

### **Features**

- Stylish wrap around, wide coverage one piece safety spectacles
- With anti-fog coating, anti-scratch and impact resistance lens
- Slim temples for comfortable fitting includes spectacles cord
- Temples comes with soft rubber padding, adjustable temple (leg length and angle)

### **Specifications:**

- Polycarbonate (PC) Lens
- Nylon Temples
- UV 99.9% protection
- Packaging with one poly bag per unit
- One box: 12 Units
- One carton: 300 Units
- Standard: ANSI Z87.1 Approved

# STEALTH 9000 SAFETY SPECTACLES BLUE MIRROR MC LENS



- Lightweight safety spectacle
- Adjustable nose bridge
- UVA, UVB & UVC protection
- Class 1 optics with Mist Resist™
- B Grade impact at extreme temperatures
- Bespoke branding with JSO Logo Express®
- 25g lightweight

**Features** 

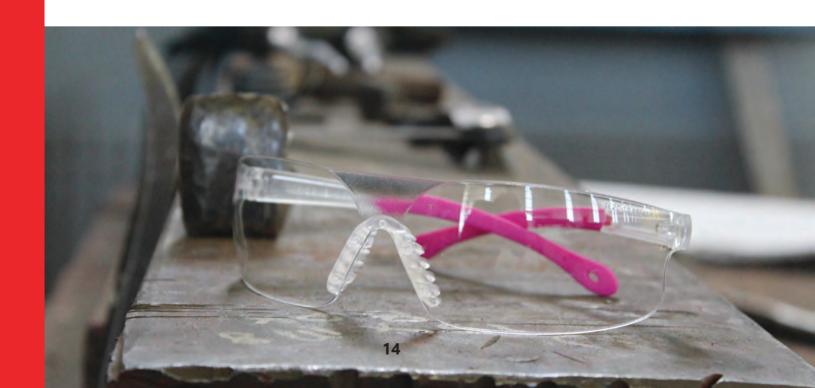
### STEALTH 9000 SAFETY SPECTACLES BLUE **MIRROR MC LENS**

Code: IPCVC-0003-JP-000

Colour: Blue / Orange | Size: Universal

### **Specifications:**

- Polycarbonate (PC) lens
- Soft Rubber Temples
- Standard: EN166 1F Approved



**WOOLLEN BALACLAVA** 



• Made from pure wool to keep head and face warm

**WOOLLEN BALACLAVA** 

Code: **P1043 QS** Colour: **Black** | Size: Universal

### **Specifications:**

Material: Wool



# **Notes**




# **Hearing Protection**

Select PPE offers a wide range of Hearing Protection Devices (HPD's) from our network of premium suppliers as well as from our House Brands, to assure you select the correct HPD and have sufficient protection.

Issuing an employee with hearing protection should really be considered a last resort when all other options have been explored. There are many ways to reduce noise levels before they even reach the ear including screens, enclosures, acoustic jackets to name a few. Modern machinery should be engineered to keep noise levels as low as practical as detailed in The Supply of Machinery (Safety) Regulations 2008. If noise levels are still high, this should be clearly stated on the machinery concerned. Many noise sources cannot be reduced in practice, and it is in this event that individual protection should be evaluated. A full risk assessment should be carried out by suitably qualified persons who can measure the relevant levels and advise of the level of protection needed.

### Who needs protection

A worker in a noisy press shop or using pneumatic tools would need some form of protection but what about the cleaner using a vacuum for 8 hours a day or a worker in a busy restaurant? Areas where some form of hearing protection may be needed vary considerably and only an accurate Risk Assessment and noise survey can give a definitive answer. In simple terms, if you cannot hold a normal conversation with another person who is within 2 metres then you may need some form of protection. Lower noise levels for long periods can be just as damaging as short-term exposure to higher levels.

### More is not always better...

The better the protection, the more the hearing is protected? This may seem to be the obvious solution to noise in the workplace but this is one of the few situations where this does not apply. Using very high levels of protection can have the effect of isolating the worker. They will be unable to communicate verbally and have to remove the ear protection to have a verbal conversation. In very high noise levels this short exposure can have serious implications. Noise levels should be reduced to a "safe" level only so that the wearer can still hear what is going on around him. Consider a worker in danger, would he hear a shouted warning from a nearby colleague? This means that different ear protection may need to be worn in different areas so that noise levels are reduced to a safe level, yet still allow communication. In practice levels of 75 - 85dB at the ear are optimal but you should not reduce these levels below 70dB or allow them to exceed 85dB.

### **Hearing loss**

Exposure to high levels of noise, typically over 87dB can cause damage to a person's hearing that is permanent. Thousands of people have damaged hearing directly as a result of excessive noise at work. Loss of hearing is not the only problem when exposed to high noise levels, tinnitus (a constant ringing or buzzing in the ears) can be a permanent distressing condition which can be life altering. Hearing loss can be slow to become noticeable, with slight losses over many years. Others around will often become aware of the loss in someone's hearing first, with the individual themselves not noticing anything for several years, by which time the damage is done and irreversible.

### SELECTING THE PROPER EARPLUG

Fit-testing allows one to try on a variety of hearing protectors that may be suitable. Often, one's first choice of earplugs is not the best. Our network of premium suppliers offers various fit testing programs. Let us fit-test you today. Here are some selection tips that have proven useful in one-on-one training.

### SELECTING THE PROPER EARPLUG

Average weighted noise level (dB)	Select a protector with an SNR of
85-90	20 or less
90-95	20-30
95-100	25-30
100-105	30 or more
	10

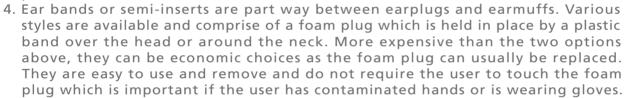
# **Hearing Protection**

### Types of HPD's

- 1. Foam earplugs are available in various styles and can offer very high levels of protection. The type of foam used can also be adjusted to give different levels of protection for lower
  - noise levels. While some styles can be washed, dried and re-used they are more typically disposed of at the end of the shift. Various dispensing systems are available with a very low cost per plug. This style of protection can come in standard, corded or detectable versions for use in the food industry. While cheap to buy they require careful fitting and have to be rolled between thumb and forefinger to compress the foam before insertion. We would not recommend these in dirty environments or where they need to be frequently removed.







5. Earmuffs are one of the more expensive options but are re-usable and can be incorporated with other protective equipment such as safety helmets. Available with a wide range of protection levels and fitting options, for example headbands, neckbands, helmet mounts. There are also electronic versions for communications, entertainment and control of noise levels but these can be expensive to buy and maintain.









### **GENERAL EARPLUG SHAPES**



- SIZE:
  - Look at the ear canal opening to determine whether a different size would be helpful. Women often have smaller ear canals than men do.
- SHAPE:
  - Ear canal openings may appear as round, oval or a slit. A foam earplug often fills an oval or slit in the ear canal.
- EASE OF INSERTION:
  - An earplug with a stem may be easier to insert.

# **Hearing Protection**

# Introduction

### **HOW TO PROPERLY INSERT EARPLUGS**

STEP 1: ROLL For roll-down foam earplugs, start rolling the foam gently to avoid creases. Then roll firmly to make the cylinder as small and stiff as possible. Move quickly to next step so that the earplug doesn't expand before insertion.

PH

STEP 2: PULL Reach over the head to pull OUT (or for some people, pull UP or BACK) on the outer ear. Have someone observe and give you feedback about which pull-direction is most effective in opening the ear canal for a better fit.



STEP 3: INSERT the earplug far enough so that it goes around the bend in the ear canal. This often feels sensitive (not painful), or may trigger a cough reflex. This is normal. Let go of the ear after the earplug is fully inserted.



Correcting your fit / Under-protection:

Having an earplug in the ear is no guarantee of adequate protection. Fit-testing often reveals poor protection levels that can be corrected with simple steps.

Discomfort:

An uncomfortable earplug potentially reduces wear time, and is often a sign of an improper fit or incorrect sizing. Take the time to find the proper earplug style and fit that are best for you and will provide adequate protection the entire work shift.

Hidden leak:

A hidden leak can significantly reduce protection levels. The earplug may appear to be inserted correctly, but improper sizing and selection or even a crease in the earplug may cause an acoustic leak that is not readily visible. To effectively block noise, nearly all of the earplug needs to be inside the ear canal. Too much earplug showing outside of the ear canal is a sign of a

Too much earplug showing:

shallow insertion, not deep enough to adequately block noise.

### Hearing protection: Choosing the right product using the SNR method

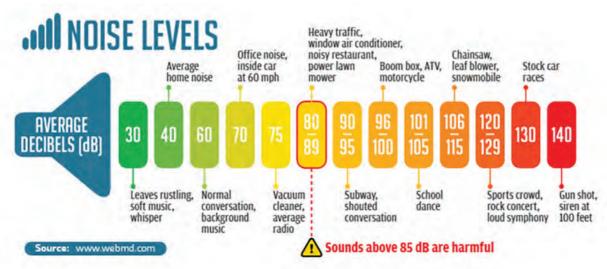
Goal = noise level - SNR value

The objective when choosing suitable hearing protection is to achieve an effective residual noise level of between 75 dB and 80 dB for the wearer. If sound absorption is too high (over-protection), this may result in an inability to communicate and cause feelings of isolation.

### Example:

Noise level 100 dB - SNR 26 dB = 74 dB

### **Examples of Noise:**



**BASIC EARMUFF SNR 27** 



**Features** 

- Lightweight hearing protection device
- Excellent user comfort
- Adjustable headband
- Material:
- PVC headband, with PVC cups and soft PVC cushions
- Product weight: 164g +-3%
- Packing:
- 1pc/bag, 10pcs/box, 60pcs/carton

**BASIC EARMUFF SNR 27** Code: **EPLRE-0016-PR-000** 

Colour: Black / Red | Size: Universal

### **Specifications:**

- SNR(dB) 27
- ANSI S3.19 and CE EN352-1



• Dielectric design usable in work environments with

- Low weight makes all-day war comfortable
  Broad ear cushion comfort for all sizes and headband
- Sets new records for value for money hearing protection

EAR MUFFS RED 2300035U

Code: **P150** 

Colour: Black / Red | Size: Universal

### **Specifications:**

- SNR(dB) 25,26,25
- H (dB) 30,29,20
- M (DB) 23,23,22
- L (dB) 14,15,14



# Notes




**DUST MASK DISPOSABLE NIKKI FFP2** 



- Protection against solid particles and non-volatile liquids,
- For working environments in which deleterious and mutagenic particles can be found
- Protects against aerosols, fog and smoke
- Superior level of filtration/protection
- Minimal breathing resistance
- Easy to use
- Fits all face sizes comfortably and correctly
- Meets WHO guidelines for protection against infectious diseases such as TB

### **DUST MASK DISPOSABLE NIKKI FFP2**

Code: **P2054** 

Colour: White / Yellow | Size: Universal

### **Specifications:**

Standard: EN 149:2003+A1:2009



### **Features**

- For working environments in which deleterious and mutagenic particles can be found in the breathing air
- Worn in the metal and minning industry
- Protects against aerosols, fog and smoke which can lead to lung disease
- Exhalation valve reduces hot air build-up and provides easy breathing in hot and humid environments
- Superior level of filtration /protection
- Easy and comfortable fitting
- Strong and durable design



### **Specifications:**

Standard: EN149:2003+A1:2009



### **Features**

- Reusable full face mask offers lightweight comfort and
- Unique center adapter to direct exhaled breath and moisture downward, helps reduce debris from depositing in the valve, allows for quick and cleaning
- Large lens for wide field of view, excellent visability
- Well balanced design with silicone face seal for greater comfort and durability
- Combine with appropriate 3M™ Particulate Filters or Cartridges, to help provide respiratory protection against particulates and/or a variety of gases and vapours

• 400g

### **RESPIRATOR FULL FACE MASK 6800**

Code: **P848** 

Colour: Black / Red | Size: Universal

### **Specifications:**

- Dark Grey in colour
- Harness type: 4 points
- Primary Material: Silicone/Thermoplastic Elastomer
- Product Series: 6000 Series

**CARTRIDGE ABEK1-6059** 



### **Features**

- Gas and vapour 3M cartridge 6059 protects against
- organic vapour hazards

   Bayonet fitting allows filters to be clicked into place for ease of fitting

### **CARTRIDGE ABEK1-6059**

Code: **P488/2** 

Colour: **Grey** | Size: Universal

### **Specifications:**

- Standard: EN 141 ABEK 1
- Suitable for 3M 6000 and 3M 7000 series half face and full face masks



### **PRE-FILTERS P3-5935**

Code: **P486/2** 

Colour: White | Size: Universal

### **Features**

- Bayonet-style for easy fitting
- Twin filter design offers good balance and undisturbed field of vision
- Gas and vapour cartridge 6057 protects against organic vapours

### **Specifications:**

- Standard: EN143:2000 /A1:2006
- Suitable for use with 3M 6000 and 3M 7000 series half face and full face masks



### **RETAINER PRE-FILTER-501**

Code: **P485** 

Colour: **Translucent White** | Size: Universal

### **Features**

- Approved 3M system component
- Designed to hold 3M particulate filter 5N11
- Colour: Translucent white

### **Specifications:**

- Component works with 3M respirator 5000 series, 3M cartridges 6000 series and 3M filter adaptor 603
- Measures 4"high X 8.5" long X 4.5"wide

# Notes



# **Hand Protection**

Through our network of premium suppliers, as well as our house brands, Select PPE offers a comprehensive portfolio of hand protection, suitable for your every need. Combining comfort, protection and ergonomics for user safety, our range of gloves is suited for all uses in amy environment. Our aim is to guarantee comfort, safety and suitability - at an affordable price.

### **Knitted gloves**

Knitted gloves are produced on automated machines ensuring consistency during production. A variety of yarns are used with carefully selected properties to give excellent cut resistance, dexterity and breathability. A wide range of coatings may be applied to enhance physical properties such as grip, chemical protection and liquid resistance amongst others.

### Cut and sewn gloves

Cut and Sewn gloves, as the name suggests are made by sewing together the individual pieces of the glove usually by hand. This may result in slight differences in glove sizing, for example, and also introduces possible weaknesses in seams and stitching. This method is most commonly used in raditional leather gloves, but also used with other synthetic materials.

### **Supported gloves**

Supported gloves are usually based on a knitted liner which is then dipped in the coating material. These gloves offer good all-round performance and are available with various coatings, nitrile rubber and Polyvinyl Chloride (PVC) being the most common.

### **Unsupported gloves**

Un-supported gloves are similar to supported gloves, but do not have the inner liner. These can be made from a variety of materials suachh as latex, nitrile, PVC or mixtures of different compounds.

### The choice and combination of raw materials during manufacturing is essential to ensure the expected results:

- Natural Latex: Excellent resistance to equeous chemical products.
- Neoprene: resists diluted acids and petroleum products.
- NBR (Nitrile Butadiene Rubber): Excellent resistance to petrolium products and solvents as well as to perforation.
- PVC: Very high abrasion resistance.
- Butyl: Good resistance to ethers and ketones.

### Selecting the correct safety gloves

There are many factors that must be considered when selecting the appropriate safety gloves. To help you make the best choice, clear guidelines include helpful symbols for selecting safety gloves for specific application.

- 1. Identify and classify risk potential What is the main risk for users in the workplace?
  - The symbols provide initial guidance to help you choose the right category for the appropriate safety gloves.
- 2. Determine individual requirements of the safety gloves. Which activities will primarily be carried out at the workplace in question?
  - Will the nature of the work require precision, entail interchangeable all-round activities or place high demands on the wearer and the safety gloves?

Precision	All-round	Heavy duty
Activities where a high level of sensitivity is necessary.	General, multiple activities for which robust, stable safety gloves are required.	Tough activities requiring extremely robust, abrasion resistant safety gloves.
Examples: fine assembly work, working with small parts (e.g. screws), operating controls, end inspection.	Examples: servicing, transport work, light metal processing, standard assembly work, maintenance.	Examples: heavy transport work (e.g. pallet transport), construction, servicing.

# **Hand Protection**

# Introduction

### 3. Define the application environment. Identify the general conditions of the workplace.

Will activities be carried out in wet / oily, damp or dry working conditions? All our safety gloves come with one of these 3 environment classification recommendations. The degree of suitability is determined by the respective amplitude level.



Working areas that do not have any moisture (water, oil, fat, cooling lubricant, etc.). Safety gloves for these conditions are extremely breathable. Examples: quality control, assembly work, distribution, end processing.



Working areas with some moisture. Safety gloves for these conditions are less breathable. The water/oil-repelling coating is crucial and guarantees slip-resistance. Examples: oil-coated parts, changing between dry and damp working environments.



Working areas in which hands should be protected from liquids (not chemicals). Sealed safety gloves with high slip-resistance are necessary. Examples: removing oily/wet parts from machines, outdoor activities (weather-related humidity).

### **Hand Protection – Standards & Legislations**

### **Protective Gloves: General Requirements**

### EN 420 2003 + A1: 2009

This standard defines the general requirements for glove design and construction, innocuousness, cleaning instructions, electrostatic properties, sizing, dexterity, water vapour transmission and absorption along with marking and information.

### PROTECTIVE GLOVES AGAINST MECHANICAL RISKS

### FN 388 - 2016 FN388:2003

Standard specifies physical and mechanical aggression caused by abrasion, blade cut, tearing and puncture. EN388:2016 updates the existing standard with this new test method for abrasion, blade cut & impact resistance. EN ISO 13997:1999 (TDM test) records cut results as a Newton value - the force of the blade on the glove material needed to cut through the material 20mm. The results are represented on a scale A-F.

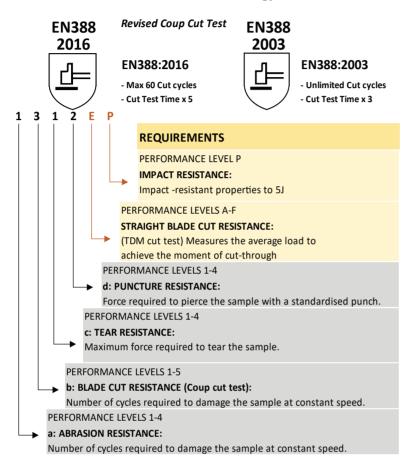
The 'mechanical risks' pictogram is accompanied by a 6-unit code (a-f). The 'mechanical risks' pictogram is accompanied by a 6-unit code (a-f).

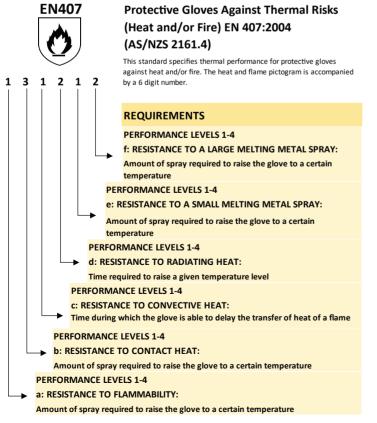
- a. Abrasion Resistance
  - Based on the number of cycles required through the same glove.
- b. Blade cut Resistance
  - Based on the number of cycles required to cut through the sample at a constant speed.
- c. Tear resistance
  - Based on the amount of force required to tear the sample.
- d. Puncture Resistance
  - Based on the amount of force required to pierce the sample with a standard-sized point.
- e. ISO Cut Resistance
  - Based on the force required to cut through a sample using a specified cut test machine under specified conditions.

# **Hand Protection**

### **EN Impact Protection**

Based on the measured transmission of energy and force when the sample experienced a dropped load.





# **Hand Protection**

# Introduction

### **B: RESISTANCE TO CONTACT HEAT:**

PERFORMANCE LEVEL	CONTACT TEMPERATURE (°C)	THRESHOLD TIME (Seconds)
1	100 °C	≥15s
2	250 °C	≥15s
3	350 °C	≥15s
4	500 °C	≥15s

### **EN12477: Protective gloves for welders**

This standard specifies how the gloves are designed to provide protection for both hand and wrist while welding or similar work, this is a combination from testing EN 388 and EN 407. Welding gloves shall provide resistance to small splashes of molten metal, short exposure to convective heat, to radiant heat and to contact heat. The welding gloves shall give protection from mechanical risks as well.

Type A refers to gloves that provide a higher protection against heat.

Type B refers to gloves that provide a lower protection against heat, but are more flexible and pliable.

### Standard for manual metal welding

REQUIREMENTS (EN LEVELS)	TYPE A	TYPE B (HIGH DEXTERITY, TIG, WELDING)
Abrasion	2	1
Cut	1	1
Tear	2	1
Puncture	2	1
Burning Behaviour	3	2
Contact Heat	1	1
Convective Heat	2	-
Small Splashes	3	2
Dexterity	1	4

Type B gloves are recommended when high dexterity is required (e.g., TIG welding), while Type A gloves are recommended for other welding processes. Type A or B is to be marked on the products, its packaging, and in the instructions for use

### Protective Gloves: Against Chemicals and Micro-Organisms (AS/NZS 2161.3)

**EN 374-1: 2003 (AS/NZS 2161 .10.1)** This European standard specifies the requirements for gloves to protect the user against chemicals and/or micro-organisms and defines terms to be used.

**EN 374-2:2003 (AS/NZS 2161 .10.2)** This European Standard specifies a test method for the penetration resistance of gloves that protect against chemicals and /or micro-organisms.

**EN 374-3: 2003 (AS/NZS 2161 .10.3)** This European Standard specifies the determination of the resistance of protective glove materials to permeation by potentially hazardous nongaseous chemicals under the condition of continuous contact.

Gloves must prove that they are an effective barrier against liquids and microorganisms. Performance levels are according to Acceptable Quality Levels (AQL) whereby samples are taken from a batch of gloves and tested during production for pinholes and leaks by either inflation with air or by filling with water. Gloves must meet at least level 2, to be considered micro-organism resistant. (Level 1 = AQL 4.0) (Level 2 = AQL 1.5) (Level 3 = AQL 0.65)

The "Low Chemical Resistant" or "Waterproof" glove pictogram is to be used for those gloves that do not achieve a breakthrough time of at least 30 minutes against at least three chemicals from the defined list, but which comply with the penetration test.

# **Hand Protection**

Code	Chemical	Class
Α	Methanol	Primary alcohol
В	Acetone	Ketone
С	Acetonitrile	Nitrile compound
D	Dichloromethane	Chlorinated paraffin
E	Carbon disulphide	Sulphur containing organic compound
F	Toluene	F Aromatic hydrocarbon
G	Diethylamine	Amine
Н	Tetrahydrofuran	Hetero-cyclic and ether compound
J	Ethyl acetate	Ester
K	n-Heptane	Saturated hydrocarbon
L	K Sodium hydroxide 40%	Inorganic base
	Sulphuric acid 96%	Inorganic Mineral Acid

Passage time measured (min)	Performance index to permeation				
> 10	1				
> 30	2				
> 60	3				
➤ 120	4				
➤ 240	5				
→ 480	6				

### EN1149

Protective Clothing: Electrostatic Properties

EN 1149 - 1:2006

This European Standard specifies a test method for materials intended to be used in the manufacturing of electrostatic dissipative protective clothing (or gloves) to avoid incendiary discharge. This test method is not applicable for materials to be used in the manufacturing of protection clothing or gloves against mains voltages.

### EN 1149 - 5:2008

Protective Clothing - Electrostatic Properties - Part 5. Material Performance and Design Requirements. This European standard is part of a series of standards for test methods and requirements for electrostatic properties of protective clothing. The standard specifies material and design requirements for garments used as part of a total earthed system, to avoid incendiary discharges. The requirements may not be sufficient in oxygen enriched flammable atmospheres. This standard is not applicable for protection against mains voltages.



### **ESD GLOVES**

ESD gloves are used to divert static electricity. Surface resistivity is tested according to methods specified in EN1149-1 but test samples must meet the requirements of EN1149-5.



### CE Food Safe

European legislation with respect to Food Contact Materials (Directive EC1935/2004) requires that food contact materials shall not transfer their ingredients to food and must not modify the organoleptic properties (i.e. colour, smell, texture and taste) of the food. Products intended for food contact shall be labelled as such.



### Protective Gloves Against Cold EN 511:2006 (AS/NZS 2161.5)

The European Standard specifies the requirements and test methods for gloves which protect against conductive cold down to -50 degrees Celsius. This cold can be linked to the climate conditions or an industrial activity.

# **Hand Protection**

# Introduction

GENERAL GLOVE	INDUSTR	RIAL US	E:										
DISPOSABLE GLOVES FABRIC GLOVES				LEATHER GLOVES			CHEMICAL RESISTANT GLOVES						
Disposable gloves, constructed using plastic to protect against mild irritants			Constructed using cotton or fabric material, used to insulate the hands from heat or cold. Used for enhanced grip and handling slippery objects			nands nanced	Leather is a traditional material used to protect against injuries from rough abrasive surfaces. Ideal for use in welding applications.			Manufactured from rubber, neoprene, polyvinyl alcohol or vinyl etc. These gloves protect hands from corrosives, oils, and solvents			
All the same of th							The state of the s						
GLOVE LINER TYPE	PES	ı											
KNITTED		Highly	/ breathable,	close fitting	with	good de	xterity						
SEAMLESS		Avoid	s hand irritati	ons due to r	no se	ams, inci	ease co	mfort					
SEWN & IMPREG	NATED	fabric gloves	for good resi	stance to ab	orasio	on. Sewin	g and ir	mpregna	tion p	rocess all	ows t	he manufact	uring of thin
COATED/ DIPPED		comp	by dipping a ound and add sed for differe	ds strength.	Com								" the ent compounds
GLOVE LINER MA	TERIAL												
COTTON	POLYE	STER	NYLON	ACRYLIC		PARA RAMID	НР	PE GLASS FIBRE		LEATHER: SMOOTH GRAIN		LEATHER: SPLIT GRAIN	
Comfort / Breathability	Durability		Stretch / Elasticity	Insulation	Cut Resistance / Heat Resistance		High performance Cut Resistance, Comfort, Abrasion Resistance		Cut Resistance		Durable, supple, oil & water repellent		Abrasion Resistance, Durable. Dry grip
DIPPING MATE	RIAL												
NITRILE	NEOPR	ENE	NITRILE FOAM	PU		LAT	EX	PVC		TPR		TPV	
Excellent resistance to snag, cut, puncture and abrasion. Dry grip	Dry, wet a	nd oil	Oil and wet grip	Good abrasion resistance Dry grip		Dry and wet gr		Good abrasion resistance. Dry, wet and oily grip		Impact Protection		Impact Protection	
CUFF STYLE													
UNSUPPORTED GLOVES	BEAD	ED	STRAIGHT	RAIGHT PINKED		SUPPO GLO	GAUN		GAUNTLET		RIST	SAFETY CUFF	SLIP ON CUFF
Moulds are dipped directly into a compound material, giving the wearer maximum dexterity. There are two options, unlined or flock-lined with cotton or rayon polyester for improved comfort	Optimised protection increased strength	with	Additional length which protects forearm from liquid runoff	Traditional style, impro- edge grip fo ease of doni and glove removal	r	A liner is a into a cor material. absorben provides improved comfort a wear and strength a	liner is dipped ato a compound laterial. This assorbent liner rovides approved approved approved area and adds arength and urability to the		al hich us)	gloves in pand prevention		Provides additional wrist protection	Easy donning, economical design
											PRIDE .		

# **Hand Protection**

# Introduction

Material Features	Cotton	Polyester & Nylon	High Tenacity Nylon	Kevlar	НРРЕ	Glass Fibre & Nylon	Steel & Synthetic	HPPE, Nylon & Glass	Kevlar Steel
Cut Resistance	Poor	Poor	Average	Very Good	Very Good	Good	Excellent	Very Good	Excellent
Tear Resistance	Average	Average	Average	Excellent	Excellent	Poor	Excellent	Excellent	Excellent
Comfort	Very Good	Very Good	Good	Good	Excellent	Excellent	Poor	Good	Good
Heat Resistance	Good	Poor	Average	Very Good	Poor	Poor	Poor	Poor	Average
Cold Resistance	Good	Average	Good	Very Good	Average	Average	Average	Average	Average
Sweat Absorption	Very Good	Poor	Poor	Average	Good	Poor	Poor	Good	Poor
Elasticity	Poor	Average	Poor	Poor	Poor	Poor	Poor	Poor	Poor
Yarn Costs	Very Low	Very Low	Low	High	High	Low	Medium	High	High

GLOVES PRIDE H1000 HIGH CUT & ABRASION



### **Features**

- Half dip foam Nitrile
- Great dexterity, sense of touch, and high level of cut
- The form-fitting, 10-gauge, high performance polyethylene (HPPE) fibre blended machine knit shell combines comfort and dexterity
   Features a premium micro-foam palm coating channels that channels away oils and adds flexibility, dexterity and grip

### **GLOVES PRIDE H1000 HIGH CUT & ABRASION**

Code: GNIBL-0032-PR-000, GL-H1000-XING Colour: Black / Red | Size: 10





# Notes



# Introduction

## Workwear

We have a wide selection of fabrics suitable for most industries. These extensively tested and durable fabrics offer outstanding breathability to provide the wearer with ease of movement and comfort, allowing them to complete their jobs safely and to the best of their ability. Our garments are found in South Africa's toughest industries and have been protecting South African workers for more than 20 years. Browse through our fabrics and ensure that you are taking safety and that of your employees seriously.

SANS 1387: 2009 addition 2.1-part 4 approved fabric made up of a 100% cotton satin weave, weighing 270gsm -300gsm. Being 100% cotton, the fabric ensures breathability and comfort. This fabric can withstand a minimum of 50 washes when washed according to approved manufacturers recommendations. In addition, it is zeroflame treated with chemicals giving it flame retardant properties. It is important to note that ironing this fabric after washing reignites the flame retardant properties.



Zeroflame® and Zeroflame® Acid: A SANS 1387: 2009 addition 2.1-part 4 approved fabric made up of a 100% cotton satin weave and weighing 270gsm -300gsm. Being 100% cotton, the fabric ensures breathability and comfort. This zeroflame fabric can withstand a minimum of 50 washes when washed according to approved manufacturers recommendations. In addition, it is treated with chemicals giving it flame retardant and acid resistant properties. It is important to note that ironing this fabric after washing reignites the flame retardant properties.

An EN approved fabric made up of 100% cotton weave and weighing 235gsm. This is our ultra-cool flame retardant fabric which is used in sub-tropical areas. **Zeroflame** This fabric was initially developed for European companies working in the OGP industry, but since then it has found many other uses. It is EN ISO 11612:2015 approved.



This 100% cotton twill fabric weighs 220gsm. It ensures breathability and is comfortable to wear making it an ideal workwear fabric. It is also SANS 1387: 2009 addition 2.1 part 4 certified.

**J54** 

A fabric made up of a 100% cotton satin weave and weighing 270gsm, the D59 cotton fabric is tough and durable and ensures 100% breathability. In addition, it is also SANS 1387: 2009 addition 2.1 part 4 certified.

**D59** 

Viscose rayon is similar to other natural fibres, such as cotton, even though it is man-made. Made for durability and comfort, this premium acid protection product is a manufactured with cellulose solution which is developed from wood pulp.

POL Y VISCOSE ACID RESISTANT

Developed and approved in the USA, Vinex ® is a specialised fabric used exclusively in the Aluminum industry due to its ability to resist molten metal splash.

VINEX

Developed by DuPont (a global powerhouse across numerous industries), Nomex® is an inherently flame retardant fabric due to its 93% meta-aramid, 5% para-aramid and 2% carbon / nylon anti-static make-up. This means the very fibres it is weaved from already have flame retardant properties. This makes its flame retardant properties (amongst others) far greater than most fabrics, particularly flame retardant treated fabrics. Nomex® is often the preferred fabric for F1 racing suits.

**NOMEX** 

Technically complex and impressive, our 350gsm, 98% cotton, 2% carbon fibre flame retardant and anti-static fabric allows an individual to work in environments where both these risks are prevalent, all the while ensuring 100% protection from these elements.

**DALETEC** 

# Workwear

## Introduction

A fabric comprising of 65% / 35% polyester cotton and weighing 235g, this fabric is able to withstand a minimum of 50 washes when washed according to approved manufacturers recommendations. It has been treated to repel water, oil and acid and is an ISO 14419-1998 > grade 5 certified fabric.

POLY
COTTON
ACID
RESISTANT

Our very popular polycotton blend is available in numerous colours and sold nationwide. This fabric is durable, comfortable, lightweight and flexible. Available in 65/35% and 80/20 % Polyester cotton.

POLY COTTON

This is a 12oz, 100% cotton denim fabric which is used in various industries and across numerous styles. It is comfortable, durable and brings an element of fashion to workwear.



This is a unique flame retardant, NFPA 2112 UL Certified fabric with APTV: 14 Cal rating. It is comfortable, durable and flexible, and provides all the protection required.



#### Workwear Features:



A pen is an essential part of many workers' daily lives. Most of our garments are fitted with a pen division for this exact reason, allowing workers to easily access and store their pen as they go about their day.



A bar tack is a series of close, dense zigzag stitches used to reinforce areas of stress on garments, such as pocket openings, bottom of a fly opening or buttonholes. This quality feature adds extra durability to our garments.



Our triple stitched seams are fed through a folder by highly skilled and specialised machinists. On most of our garments we use triple stitching on all stress bearing seams to ensure our garments have an added life span.



We use YKK zips, the world's largest zip manufacturer, on most of our garments.



An adjustable cuff is an optional feature for extra comfort which allows the cuff to be adjusted to the individual wearer's size.



Visibility is always a priority thus we offer reflective tape on most of our garments.



The edges of the button holes are covered with a knot to "gimp" the buttonholes which gives garments superior strength.



We offer HACCP designed uniforms and work garments for workers in the food and beverage industry.



We use double stitched seams on our garment pockets to ensure the garment is durable and has an extended life span.



We have a range of garments which have added padding to keep the wearer warm in colder environments.

PADDED BOMBER JACKET POLY COTTON



#### PADDED BOMBER JACKET POLYCOTTON

Code: **P2312 SZ** 

Colour: Black | Size: S - 5XL

#### **Technical Data:**

• Polycotton 80/20

# Poly cotton 80/20 with quilted lining & loomtex in colar, Front closure has open end plastic chunky YKK zip

- All stress points are bar tacked

**ERSEY MILITARY NAVY BLUE** 



- V-Neck
- Epaulettes
- Ribbed neckline, sleeves and waistband

**JERSEY MILITARY NAVY BLUE** 

Code: **P2393 NA** 

Colour: Navy Blue | Size: S - 3XL

Available in these colours:

Navy Blue: P2393 NA

Black: P2393 BL

#### **Technical Data:**

• 7G acrylic yarn

COMBAT JERSEY BLACK



- V-Neck
- Epaulettes
- Ribbed neckline, sleeves and waistband
- Heavy duty elbow patches

**COMBAT JERSEY BLACK** Code: **RETC153 SZ** 

Colour: Black | Size: S - 3XL

Available in these colours:

Black: RETC153 SZ

Navy Blue Code: RETC155

#### **Technical Data:**

• 100% Acrylic

**PULLOVER BLACK** 



• V-Neck Collar, classic design

PULLOVER BLACK
Code: RETC151 SZ

Colour: Black | Size: S-3XL

Available in these colours:

Bla

Black: RETC151 SZ Navy Blue: RETC154

#### **Technical Data**

• 100% Acrylic



Colour: Light Blue | Size: S-5XL



- Zip away hood
- Stand up collar
- Elasticated cuffs
- Hand Slot behind front pocket
- Padded for warmth and insulation

#### **Technical Data**

• Water resistant oxford nylon.



• Very popular and affordable basic security parka jacket with Zip

• Collar, 2 Pockets and Epaulettes

PARKA SECURITY JACKET BLACK

Code: **RETC167 SZ** 

Colour: Black | Size: S-3XL

Available in these colours:

Black: RETC167 SZ

Navy Blue Code: RETC168

#### **Technical Data**

• 200DP Oxford Nylon Outer,120gsm Diamond Taffeta Inner

T-SHIRT LIGHTWEIGHT BAMBOO



#### **Features**

- Moisture Wicking
- Odour and allergy resistance
- Durable and breathable fabric

#### T-SHIRT LIGHTWEIGHT BAMBOO

Code: **P1517 SZ** 

Colour: Black | Size: S - 3XL

#### **Technical Data**

- 52% Viscose from bamboo
- 48% Polyester



#### **Features**

- Combat Shirt
- All stress points are bar tacked
- Shirt has 2 epaulettes on the shoulder with single needle top stitching & 1 X 17mm 4 hole plastic buttons
- Complete with 2 chest pockets with mitred corners

#### **SHORT SLEEVE COMBAT SHIRT**

Code: **P2309 SZ** 

Colour: Navy / Black | Size: S - 5XL

#### **Technical Data**

- Material weight: 200gsm
- Polycotton 80/20



#### **Features**

- The trouser has Ng5 metal button & Pin
- Concelaed metal closed end zip closure
- All stress points are bar tacked
- Anti-acid and anti-alkali
- Concealed 38mm hard pull Elasticised back waist

#### **COMBAT TROUSER POLY COTTON**

Code: **P2310 SZ** 

Colour: Black | Size: 28 - 48

#### **Technical Data**

- Material weight: 200gsm
- Poly-Cotton 80/20



#### **Features**

- Mini Bib orange 135gsm
- With "Xon" the front and X on the back
- Econo wash
- TE20 Silver tape
- Level 1 Garment

#### MINI REF BIB ORANGE VEST COMES WITH A CROSS ON BACK

Code: **P027 QS** 

Colour: Orange | Size: One size fits all

#### **Technical Data**

- 135gsm 100% Polyester Orange AERTEX (RWA1350)
- Conforming to EN471 and SANS 50471 Standard



#### **Features**

- Reflective Vest,
- ID Pocket and Silver reflective tape



Colour: Blue | Size: S - 5XL

#### **Technical Data**

• 135gsm 100% Polyester navy



#### **Features**

- EN4 Jacket Poly
- Lime. 125gsm
- Standard wash
- TS50 silver tape
- Level 2 garment

#### **REFLECTIVE JACKET SOLID** Code: **P910 SZ**

Colour: Lime | Size: S - 7XL

#### **Technical Data**

- 125gsm 100% Polyester Lime
- Conforming to EN471 and sans 50471 standard
- Day glow yellow



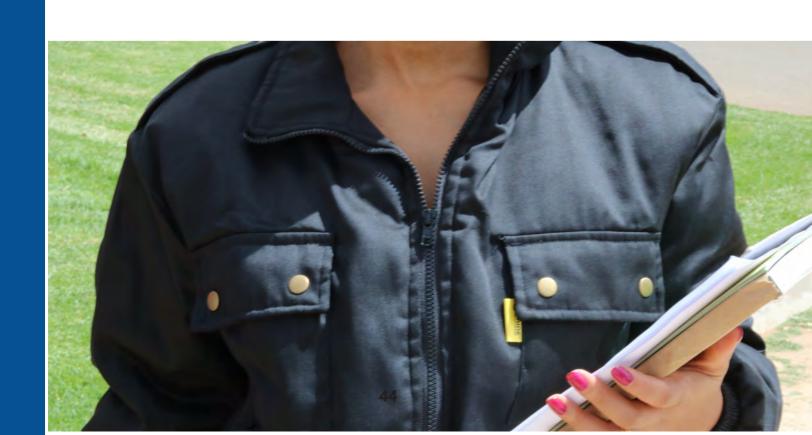
#### **Features**

- Economically designed range suit Garment comes with standard cuffs and a hood in
- Additional ventilation on the back of the jacket offers beathability to the end user
  All the seams on the garment are sealed

#### **FORCE, 2 PIECE RAIN SUIT** Code: **BVMNB-0006-FO-SZ** Colour: Navy Blue | Size: S - 5XL

#### **Technical Data**

- 100% Polyester, PVC coated fabricSABS Approved



# Notes



## Introduction

## **Foot Protection**

Select PPE offers a wide range of footwear from our network of premium suppliers as well as from our House Brands, contributing to the levels of quality and specifications needed to perform the task at hand, putting your safety first.

#### What is safety footwear?

Safety footwear has various levels of protection. It is essential to ensure the correct level of protection depending on the potential hazards involved, to ensure maximum protection.

#### Injury risks include:

- Impact from heavy objects, resulting in injuries
- Rolling objects
- Sharp objects risk of puncturing the sole
- Absorption of elements such as water or oil
- Extreme temperatures
- Hazardous chemicals
- Build-up of static electricity

It is important to know that all safety footwear sold in South Africa falls within the scope of the National Regulator for Compulsory Specifications (NRCS) and needs to be approved by this body and/or the SABS.

#### Safety footwear is available in a range of options, including:

Safety boots and shoes: the most common types of safety footwear incorporate protective toe caps with many other safety features including slip resistant soles, penetration-resistant insoles and insulation against extreme temperature. Also available as metal free.

Safety trainers: possibly considered more aesthetically appealing by wearers, these look more casual. Some have steel too caps while others are made of a plastic, referred to as composite too caps.

Riggers: these have been described as 'a real stalwart of industrial footwear'. A rigger boot is a particular type of pull-on safety boot; the name "rigger" comes from the fact that they were standard issue for workers on the offshore oil rigs in the North Sea, but have been worn by most types of manual worker as a general-purpose work boot in recent times. Concerns with this type of safety footwear have been raised, including a lack of ankle support.

Clogs: these may also be used as safety footwear. They are traditionally made from beech wood and may be fitted with steel toe-caps and thin rubber soles for a quieter tread.

#### Safety footwear features:

#### Toe protection

Toe protection should withstand at least a 200 Joule impact. Joule is a unit of energy and this standard is purposefully specific as something heavy falling from a low height could have a lot less energy than something lighter from a higher point. As well as impacts, the toe area must withstand a resting mass of well over 1000kgs. Most people have heard of steel toe cap boots but the protection doesn't have to be steel. In fact, there are advantages to alternatives. Non-metallic protection may be just as strong, but lighter.

#### Insole penetration protection

Sharp objects where we walk and stand are a signifimayt risk not only in the workplace, but also outdoors and at home. Insole protection will guard against nails and other sharp objects. To meet this standard the footwear must be able to resist a penetration force of 1100 Newton. Insole protection is provided as either a stainless-steel insole or as an aluminium insole, or a synthetic anti penetration insole. The Aluminium and Kevlar solutions are the most flexible and lightest, and cover the greatest area of the foot. Kevlar insoles also offer much higher thermal insulation.

## **Foot Protection**

## Introduction

#### **Energy Absorption**

Energy Absorption occurs in the heel region of footwear.

#### **Heat Resistant Outsoles**

Heat resistant outsoles are designed to resist 90°C to 300°C for 60 seconds.

#### Non-metallic footwear

High demands are placed on protective footwear where the use of footwear containing metal may be problematic. Safety shoes made with non-metallic components are a necessity, for example, working in industries with secured areas or airport sensors. The commonly used metal parts are replaced by textile lacing elements or plastic eyelets, as well as by composite toe caps and insoles.

#### Slip Resistance

Slip resistance is considered a 'basic requirement' of all Safety footwear.

Safety footwear may have more features than are listed above, but these are the minimum requirements to meet the requirements of EN ISO 20345.

#### **Electrical resistance**

Electrical resistance is an important characteristic of safety shoes. There are two elements that are also relevant when it comes to making the right choice:

- How well the shoe is able to prevent electrostatic charging by diverting this guickly.
- How well the shoe is able to offer protection from electrical shocks.

If you work with electricity, you may be exposed to voltage. Your shoes must have an electrical resistance that prevents excessive electricity from passing through your body.

#### Shoes with low electrical resistance

Shoes with a guaranteed low electrical resistance divert the electrostatic charge in a controlled manner. This prevents the accumulation of an excessively high charge (and an uncontrolled and intense discharge). The wearer must be working on a grounded surface in order to facilitate discharge via the shoe.

Depending on your work situation, you will need shoes with a certain resistance. Select PPE offers shoes with two types of electrical resistance: Anti-static and ESD.

#### **Electrostatic discharge**

Electrostatic discharge is important in situations involving danger of explosion (explosives, chemicals, gasses, dust explosion), or if you work with sensitive electronics (microchips, hard drives, etc.). When you move, friction causes an electrostatic charge in your body. Shoes and clothing that are not conductive (enough) may increase this charge. At a certain point, a discharge occurs. An electrical discharge that is too high or uncontrolled may have extremely uncomfortable and sometimes even serious consequences: an explosion due to spark formation, or damage to the electronic products you work with.

#### **Anti-static protection**

Clothing, seating materials, and climate factors may cause a build-up of a static charge of electricity in the body. Some materials in footwear may over insulate the body causing the charge to be held. Then when you touch something the charge may rush from your body quickly causing a spark and a small uncomfortable shock. Anti-static footwear will significantly reduce this effect, but does not offer full protection for exposure to electronics and explosives. You will need Electro-Static Protection for this. Anti-static shoes have an electrical resistance between 0.1 and 1000 Megaohm ( $M\Omega$ ), measured according to EN 20344: 2011 5 10. This value is a compromise between good protection from electrical shocks and sufficient dissipative capacity. These shoes may be worn in many different work environments.

## Introduction

# **Foot Protection**

#### **Electro-Static protection**

Electro-Static Dissipative (ESD) shoes have an electrical resistance between 0.1 and 100 (M $\Omega$ ), measured according to BS EN 61340-4-3: 2002 (IEC 61340-4-3:2001). ESD shoes are thus guaranteed to have an extremely low electrical resistance under any conditions in order to prevent a strong, uncontrolled electrostatic charge.

#### Selecting the correct footwear for the hazard / risk

Knowing the specific needs of your environment is a key consideration when selecting safety footwear. Is there a potential risk from falling objects, sharp surfaces or metals, or are chemicals or electrical hazards a potential risk?

Hazard / Risk	Considerations
Falling objects	Toe cap protection – steel or composite
Sharp objects (sole penetration)	Steel or synthetic insole protection
Metatarsal injury (crush risk)	Metatarsal protector covering the bridge of the foot
Slippery surfaces	Non-slip sole
Acids / alkalis / chemicals	Acid / alkali / chemical resistant sole; know which type of acid / chemical is being used.
Heel / ankle support	Ankle protection; lace ups; shock absorbing heels
Molten metal	Foundry boots; calf protection
Extreme temperatures	Heat resistant soles, fur linings
Minor irritant substances	Rigger boots provide extra coverage, but limited ankle support

#### Selecting the correct footwear by industry / application

As well as considering the hazards / risks involved in the selection of safety footwear, the type of industry should also be considered. As an example, the construction and healthcare industries will have very different needs.

Industry	Needs	Recommended
Agriculture	Protective toe caps and insoles; anti-static and anti-slip soles; waterproof properties	Safety boots with insole (PVC)
Catering	Shock absorbent heel; anti-slip sole; easy to clean / machine washable	Washable safety shoes (PVC)
Construction	Protective 200 Joule toe caps and insole protection; secure fit; support	Standard safety boots
Foundry (Welders)	Secure top preventing hot material falling onto feet; quick release buckles	Foundry boots; welder safety shoes
Healthcare	Non-slip sole; shock absorbent heel; comfortable sole; easy-clean / machine washable	Washable slip on safety shoe/clog
Laboratory / chemical handling	Chemical resistance (EN 13832-2; 13832-3)	Chemical resistant safety footwear with chemical resistant soles for less hazardous environments
Warehouse	Protective toe cap; anti-static and anti-slip sole; oil and acid / alkali resistance	Safety boots / shoes to suit warehouse activities / environment

#### Other selection considerations:

- Impact and Compression Ratings
- Comfort and Convenience
- Employee consultation
- Try before you buy
- Best fit
- Cost over Quality

# **Foot Protection**

## Introduction

#### **Safety Footwear Standards:**

#### EN ISO 20344:2011:

Specifies methods for testing footwear designed as personal protective equipment.

#### EN ISO 20345:2011:

This international standard specifies basic and additional (optional) requirements for safety footwear used for general purposes. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour. The toecap protects the wearer's toes against risk of injury from falling objects and crushing when worn in work environments where potential hazards may occur. The midsole protects against the foot being pierced by underfoot objects.

The classification system used to identify the protection provided by the footwear is listed below:

Safety Category	Meanings
SB (Basic Requirement)	The presence of a safety toecap providing protection against impact injury to the toes caused by falling objects. Level of protection provided is 200 Joules. Prevention of compression injury of the toes if trapped under a heavy object. Level of this protection is 15kN.
SBP	As SB standard plus penetration resistance.
S1	As SB standard plus closed seat region, antistatic properties, resistance to fuel oil and energy absorption of heel.
S1P	As S1 standard plus penetration resistance.
<b>S</b> 2	As \$1 standard plus water penetration and water absorption resistance.
\$3	As S2 standard plus cleated outsole and penetration resistance.
\$4	200 Joule toecap protection. All rubber or all polymeric footwear with antistatic properties. Resistance to fuel oil, energy absorption of heel and closed seat region.
\$5	As S4 standard plus cleated outsole and penetration resistance.
РВ	Toe protection tested to 100 Joules
ОВ	No protective toe cap

Markings		
	HRO	Resistance to high heat 300°C
Outsole	FO	Resistance to fuel oil (hydrocarbons)
	Е	Heel energy absorption 20 Joules
	Р	Penetration resistance 1100 Newtons
	CI	Insulation against cold
Whole	WR	Water resistant
		Electrical properties: Antistatic footwear
	M	Metatarsal Protection
	AN	Ankle Protection
Upper	WRU	Water penetration and absorption upper

## Introduction

# **Foot Protection**

#### EN ISO 13287:2012:

This European Standard specifies a method of test for the slip resistance of conventionally soled safety, protective and occupational footwear. It is not applicable to special purpose footwear containing spikes, metal studs or similar. The item of footwear to be tested is put on a surface, subjected to a given normal force and moved horizontally relative to the surface. The frictional force is measured and the dynamic coefficient of friction is calculated. If the outsole passes both the ceramic tile test (SRA) and the steel floor test (SRB) it is marked as SRC.

Slip Resistant Markings			
	SRA	Passes SRA slip resistant standards: tested on ceramic tile with a diluted soap solution.	
	SRB	Passes SRB slip resistant standards: tested steel contamination with glycerol.	
	SRC	Passes SRC slip resistant standards: tested on ceramic tile contamination with a diluted soap solution and smooth steel contamination with glycerol. (SRA+SRB = SRC)	

Sole Material			
N	Nitrile Sole	Nitrile rubber is a synthetic rubber copolymer of acrylonitrile and butadiene. It is used in the protective industry due to its resistance to fuel and oils. Nitrile rubber is more resistant to oils and acids than natural rubber, but has inferior strength and flexibility and has greater puncture-resistance than natural rubber.	
PU	Polyurethane (PU) Sole	Polyurethane is a synthetic soling material. It is flexible and lightweight. Resistant to 90°C heat, oil, low concentration acids/alkalis and solvents. With dual density (PU/PU), you are given an inner foam layer and harder outer layer to ensure comfort and durability. Resistant to 120°C heat, oil, low concentration acids/alkalis and solvents. * (* If marked HRO then 300°c)	
R	Rubber Sole	The material generally identified as rubber is vulcanised caoutchouc. Caoutchouc is produced from the latex sap collected from caoutchouc trees. Because unvulcanised caoutchouc breaks when cold and stinks when warm, it is vulcanised which also makes it into a durable raw material. Resistant to 200°C heat, oil, low concentration acids/alkalis and solvents. * (* If marked HRO then 300°c)	
VR	Vulcanised Rubber Sole	Vulcanisation is a chemical process for converting rubber or related polymers into more durable materials. Heat and pressure cause the rubber to crosslink and expand which fully vulcanises the sole. The sole is moulded into a very specific outer sole shape.	
PVC	PVC Sole	Polyvinyl Chloride is a water-resistant polymer resistant to minerals, vegetable oil and fats, animal by-product, manure, disinfectants and various chemicals. Resistant to 90°C heat, oil, low concentration acids/alkalis and solvents.	
PVN	PVC / Nitrile Sole	Polyvinyl Chloride is combined with the tough rigid material Nitrile to produce a harder wearing sole unit. Resistant to 100°C heat, oil, low concentration acids/alkalis and solvents	
RPU	Rubber outsole / PU Interlayer	Rubber and polyurethane combining to ensure a hardwearing comfortable light sole.	
TPU	Thermoplastic Polyurethane (TPU) Sole	TPU provides a softer, more flexible material for high quality soles in hiking boots and safety footwear. TPU offers superior wear resistance and abrasion resistance.	

# **Foot Protection**

# Introduction

Upper	
Leather	Leather is a processed and refined natural product. The many positive properties of leather make it well suited as a material to make most of Safety footwear. It is chosen because of its durability, elasticity and its ability to keep its shape. Leather has an ability to hold heat whilst also resisting moisture. Leather boots are supportive and typically last longer and are a good choice when working in harsh conditions.
Leather/Mesh	Leather/Mesh uppers is where the upper is crafted from a synthetic mesh material and overlaid with stitched leather. The benefits of having leather and mesh, allows for breathable footwear, particularly in industries where the wearer is on their feet all day. These materials may often be water-resistant treated; given longer life. Nylon mesh and leather combination boots are ideal for warmer weather because they are lightweight, flexible and breathable.
Nubuck	Nubuck is a top-grain rawhide leather giving strength, thickness and resistance to wear. It is a particularly fine leather that has been lightly sanded on the grain side and therefore been given a satiny character. Fine calfskins and cowhides are usually used for Nubuck leather. It is ideal in footwear because it remains water-resistant for a long time after waxing. The material is extremely supportive and a good choice for tough working comfort.
Suede	Suede is a generic term for a type of leather with a roughened surface that is sanded onto the flesh or grain side of the leather. Suede is made from grainy hide or from flesh splits; the flesh side is sanded and lies on the outside. Suede flesh split hides are usually understood to mean that the side facing the grain side is worked.
PVC	Polyvinyl Chloride is a water-resistant polymer resistant to minerals, vegetable oil and fats, animal by-product, manure, disinfectants and various chemicals.
Nitrile	Nitrile rubber is a synthetic rubber copolymer of acrylonitrile and butadiene. It is used in the protective industry due to its resistance to fuel and oils. Nitrile rubber is more resistant than natural rubber to oils and acids, but has inferior strength and flexibility and has greater puncture-resistance than natural rubber.
Soft shell	Soft Shell is a tightly woven fabric renowned for its breathability, and coated with a durable water repellent (DWR) finish.
Synthetic Leather	These are materials other than genuine leather which are designed to look and function like leather.

# Introduction

# **Foot Protection**

Features	
Steel Insole	A steel shank in the midsole offers underfoot protection with a penetration resistance of 1100 Newtons.
Composite Cap	Non-metallic, lightweight protection for the toes.
Anti- Penetration Synthetic Insole	Non-metallic, lightweight underfoot protection against sharp objects.
Speed Lacing	These are hooks at the top of the boot allowing the wearer to put on and remove footwear with speed and ease.
Pull on loop at rear or side	Allows wearer to put on and remove footwear with speed and ease.
Goodyear Welt	The upper and sole are heat-sealed and stitched together creating a durable last. Tough metal is used (similar to a staple) to fasten the upper and welt in the internal part of the shoe.
Bump Cap	Protects the toe cap from damage and scuffing promoting longer wear.
Gusset Tongue	Prevents debris from entering footwear
Padded Collar	Provides wearer comfort and protects the Achilles tendon
Padded tongue	A padded tongue provides excellent wearing comfort and prevents painful pressure points on the foot.
Perforated upper	Perforations provide air circulation in the shoe making the footwear comfortable to wear.
Metatarsal Protection	Protects the metatarsal area of the foot.
Heel kick panel	A kick panel on the heel of the boot allows for quick and easy removal of footwear.
Side Zip	Quick access side-zip allows wearer to put on and remove footwear with speed and ease.
Alignment loop on tongue	Alignment of the tongue on footwear allows for comfortable wear at pressure points, preventing rubbing in the footwell.
Twin gusset	Dual elasticated gussets for simple pull-on wear.
Antibacterial foot bed	Prevents the build-up of bacteria within the footwear giving longer product life.

# **Foot Protection**

# Introduction

Types of Eyelets			
D-Ring lace holds	Industrial standard heavy-duty metal D-Ring lace holds	8	
Hexagonal eyelets	Industrial standard heavy duty hexagonal metal eyelets		
Non-metallic eyelets	Non-metallic components are used in metal free footwear, eyelets are usually made of a heavy-duty plastic or synthetic material.	00	
Loop-lacing	An alternative to eyelets, giving a lighter weight, non-metallic, heavy duty textile or synthetic lacing system.		
Perforated eyelet	The eyelets are perforated directly into the leather. Ideal for lighter duty environments.		

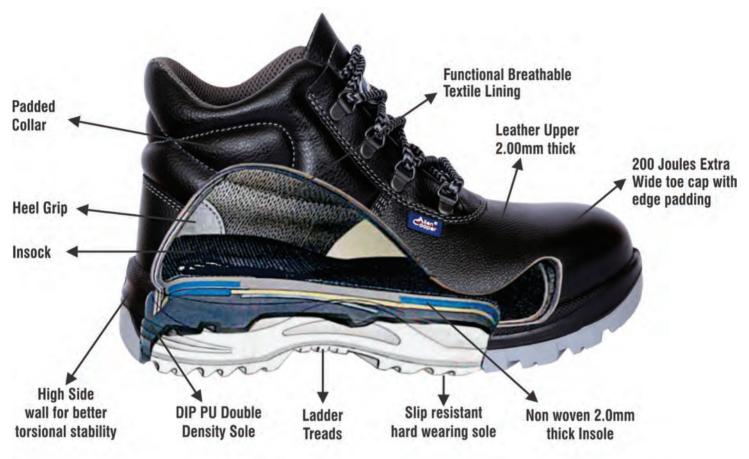
#### Size Chart:

USA	UK	EUROPE
6	5	38
7	6	39
8	7	41
9	8	42
10	9	43
11	10	45
12	11	46
13	12	47
14	13	48
15	14	49

# **Foot Protection**

# Introduction

Diagram of Typical Safety Shoe (with Anti-penetration insole)



DIP - Direct Injection Process)

SECURITY SOCKS BLACK



#### **Features**

- Cotton rich ankle length smooth knit formal socks
- BioGuard anti-bacterial treatment

#### **SECURITY SOCKS BLACK**

Code: **RETC156** 

Colour: Black | Size: One size fits all

#### **Specifications:**

• Material: Cotton

#### **SECURITY SOCKS NAVY BLUE**

Code: **RETC157** 

Colour: Navy | Size: One size fits all

#### **Specifications:**

• Material: Cotton

#### **Features**

- Cotton rich ankle length smooth knit formal socks
- BioGuard anti-bacterial treatment



- Industrial cotton safety socks
- Cotton terry towelling type
- For surface and underground application

#### **SOCKS COTTON HALF LENGTH**

Code: **P257 NU** 

Colour: Grey | Size: One size fits all

#### **Specifications:**

• 90% Cotton (74 TEX) & 10% Polyester

**CANVAS BOOTS** 



#### **CANVAS BOOTS** Code: **RETC0152 BL SZ** Colour: Black | Size: 4 -14

#### **Features**

- Dual density PU sole which is lightweight, comfortable
- Heat resistance up to 90°C
  No steel toe cap
- Eyelet lace up

#### **Specifications:**

• Oil and acid resistance

# **CANVAS BOOTS**



#### **Features**

- Dual density PU sole which is lightweight, comfortable • Heat resistance up to 90  $^{\circ}\text{C}$
- No steel toe cap
- Eyelet lace up

#### **CANVAS BOOTS**

Code: **RETC0152 NB SZ** Colour: Navy Blue | Size: 4 -14

#### **Specifications:**

• Oil and acid resistance



# **Notes**



WHISTLES PEA-TYPE



#### **FEATURES**

- Easy blow whistle
- Waterproof

# PEPPER STREAM

#### **FEATURES**

- Non-flammable
- Non toxic
- Contains no hazardous material
- Available in a 60ml and 100ml container
- Discharges tightly projected stream
- Range up to 5m
- 15 seconds continuous discharge or 12 short bursts

#### **WHISTLES PEA-TYPE**

Code: **OPLOR-0001-SA-000**Colour: **Orange** | Size: Universal

Available in the following colours:

Product code: OPLOR-0001-SA-000

Product Code: OPLBL-0003-SA-000

#### **TECHNICAL DATA**

Plastic

#### **RAM DEFENSE PEPPER STREAM 60ml**

Code: **OVMBL-0001-LO-000**Colour: **Black and Red** | Size: 60ml

#### **TECHNICAL DATA**

- 100% food grade Pepper
- Non-Flammable

PEPPER SPRAY 60ML Code:**RETC145** Colour: **White** | Size: 60ml

Also available in 110ml container

Code: RETC147



#### **FEATURES**

- Easy to carry
- Optional extra pouch
- Environmentally friendly
- Biodegradable
- Flammable

#### **TECHNICAL DATA**

• 10% Oleoresin capsicum

PEPPER SPRAY 60 ML POUCH ONLY



#### **FEATURES**

• Gas-M pepper spray

#### **TECHNICAL DATA**

PEPPER SPRAY 60 ML POUCH ONLY

PEPPER SPRAY 110 ML POUCH ONLY

• Material: Canvas

Code: RETC146 Colour: Black

• Press stud closure

Code: RETC148 Colour: Black



# **FEATURES**

• Gas-M Pepper spray



## **TECHNICAL DATA**

- Material: Canvas Press stud closure

STRAIGHT BATON 500MM



#### **STRAIGHT BATON 500MM**

Code: RETC149

Colour: Black | Size: Universal

#### **FEATURES**

- Used for Personal Protection and Crowd Control
- Highly effective tool used to Strike, Jab, Block
- Aids in Submission holds
- Textured grip for improved control
- Made from a high impact polymer
- Comes with belt loop for ease of carrying
- Plastic Police Baton with string 50cm Length
- Diameter 35mm

#### **TECHNICAL DATA**

• Material: Polymer



#### **TONFA BATON 595MM**

Code: **RETC150** 

Colour: Black | Size: Universal

#### **FEATURES**

- Used for Personal Protection and Crowd Control
- Highly effective tool used to Strike, Jab, Block
- Aids in Submission holds
- Textured grip for improved control
- Smooth vertical grip allows for use by martial artists
- Comes with belt loop for ease of carrying
- Traditional Style Police Tonfa Baton
- 595mm long

#### **TECHNICAL DATA**

• Material: Plastic

# Notes

# Notes



### **Available Stores:**

#### **Westrand Bolts & Nuts**

9 Duncan Road,Randfontein1760+27 (0)82 961 1432

#### **Paint Shuttle**

Riverside Industrial, 9 Waterlilly Street, Unit 27, Riverside Circle Nelspruit +27 (0)83 776 8982

#### **Jack's Paint Randfontein**

232 Harred Road, Randfontein +27 (0)11 693 5048

### Jack's Paint Bryanston,

Shop 4&5 Grosvenor Crossing, Cnr William Nicol & Grosvenor Street Bryanston +27 (0)10 599 0204

#### **HJD Printing & Mining Supplies**

Loseberg Business Park 56a Loseberg Avenue Fochville +27 (0)83 781 3309

#### **Build It Knysna**

8 New Street, Waterfront Park Knysna +27 (0)44 382 1132

Safe QUOTATE STORE IN STORE CONCEPT

#### **Head Office**

11 Bussing Street, Aureus, Randfontein, South Africa, 1760 +27 (0)11 296 3600 +27 (0)11 296 3724

#### **Commercial Centre**

5 Protea Street, Aureus, Randfontein, South Africa, 1760 +27 (0)11 296 3600

## Zambia Office & Warehouse Kitwe

Heavy Industrial Area Plot 5408, Kitwe, Zambia +26 (0)21 221 0917

#### **Select PPE Retail Stores**

#### Randfontein

Shop C, 92C Main Reef Road, Randfontein +27 (0)11 296 3670

#### Rustenburg

Shop #2 Midas Complex Cnr of 1st Avenue & R104 (Old Pretoria Road) Rustenburg, 0299 +27 (0)11 296 3691

#### Sishen

The Goodies Building, Industrial Area, Cnr of Ian Fleming & Ystererts Street, Kathu, 8446 +27 (0)11 296 3755

#### **Paarden Eiland**

46 Shropshire Street, Cnr of Service Road, Paarden Eiland, 7405 +27 (0)21 476 0999

#### Welkom

132 Constantia Street, Welkom, 9459 +27 (0)11 296 3764

#### **Select PPE Sales Region**

Kwa-Zulu Natal +27 (0)71 491 4261

**Western Cape** +27 (0)82 895 4920

Free State +27 (0)82 888 9225

**Northern Cape** +27 (0)82 327 7907

**Mpumalanga** +27 (0)82 888 9225

**Vaal Triangle** +27 (0)82 888 9225

North West +27 (0)82 327 7907

**Limpopo** +27 (0)82 888 9225

**Eastern Cape** +27 (0)82 895 4920

National Sales +27 (0)82 327 7907

#### **Zambia Retail Information**

#### **Kitwe**

Plot No 5408, Natwange Road, Heavy Industrial Area Kitwe, Copperbelt Zambia +26 (0)21 221 0917

#### Ndola

Jacaranda Mall, unit 14 Ndola, Zambia +26 (0)21 265 0356

#### **Zambia Sales**

Copperbelt, North Western, Luapula, Muchinga Provinces +26 (0)97 125 5877

Lusaka Southern, Eastern, Western, Central +26 (0)97 477 8490

#### **Botswana Sales**

**Gaborone** +267 (0)730 11717



#### **Warehouse & Direct Sales**

#### George

Unit 33 PW Botha Blvrd Tamsui Industria, George Industrial, +27 (0)11 296 3602