

SAFETY PROTECT

PERSONAL PROTECTIVE EQUIPMENT PREVIEW AFRICA.
THE ONLY SA MAGAZINE AIMED EXCLUSIVELY AT THE PPE END USER.
ISSN 1997-8081 • Volume 15, No 4, 4th Quarter, 2021

- BRVs - matching the product to the threat level
- No easy answers to Far Eastern sourcing issues
- ISO 40001 - integrating international standards makes sense

This Magazine
is sponsored
by:-



SAFLIA



LEMAITRE
SAFETY FOOTWEAR



INYATI RANGE

Tough durable rubber sole for any situation.



APOLLO RANGE

Maximum slip resistance.



MAXECO RANGE

Providing all-round safety, all the time.



PARABOLIC RANGE

Comfort and anti fatigue support.



RAPTOR RANGE

Torsion control that keeps you sure-footed on uneven ground.

LEMAITRE EXPANDS INTO NEW TERRAINS



Lemaitre's range of products offers a variety of features and benefits for all-round protection, comfort and performance. The latest addition to Lemaitre – the Inyati range on a PU/Rubber sole offers resistance, protection and durability in the toughest environments.

**FROM ONE WORKER
TO ANOTHER**



SOURCED AND MANUFACTURED
IN SOUTH AFRICA

www.lemaitre.co.za

In this issue

03 Bullet Resistant Vests

- The fourth in a series of articles by **Deon du Plessis**, MD of Bullet Proofing Technology, in which he discusses the threat levels faced in South Africa, and how that should influence the purchaser's choice in selecting BRVs.

09 Safety Footwear

- There are no easy answers to the problems of supply from the Far East, writes **Nick Bryant** of ProFit Safety Footwear, and everyone has to adjust.

- BBF's Lemaitre brand expands into new terrains.

10 Work Wear

- Sweet-Orr & Lybro marks its 90th anniversary in SA by exporting to the country where it originated.

12 Standards Compliance

- ISO 40001: Integrating international health and safety standards saves money and minimises risks, writes **Louise Woodburn** of KBC Risk Solutions.

- Disability friendly buildings: "It's easier than you think," writes **André Michau** of Afroteq Advisory.

14 Biocides

- Microban International announces a new range of antiviral technologies.

- AATCC test method TM211-2021: "A breakthrough method for evaluating odour control capabilities in the textile industry."

- Sanitized Puretec technology delivers antimicrobial performance for all fibre types.

16 Environmental Protection

- Nestlé announces industry-first pilot that reduces carbon dioxide emissions and recycles wastewater.

17 Legal Issues

- SARS tackles non-compliant PPE companies that benefitted from tenders.

- Western Cape healthcare products distributor agrees to pay penalty for alleged cartel conduct.

18 Workplace Injuries

- "Dysfunctional" Compensation Fund slammed for attempt to cut third party administrators from payment process.

21 Counterfeits

- Criminals are exploiting a health crisis, writes **Godfrey Budeli** of Adams & Adams.

20 Innovations - The Fraunhofer-Gesellschaft

- Medical Engineering: The 'Hearable' aims to improve collaboration between people and machines.

- Biotechnology: Stem cells from the bioreactor.

- Filter solutions for high technology processes: Clean air at all times.

24 Buyers' Guide

- What's on offer.

Editorial/Sales

Tony Dickson
Tel: +27 (0)31 209 7505
Cell: + 27 (0)83 757 4627
email: tony@svmag.co.za

Contributing Editor, Bullet Resistant Vests

Deon du Plessis, Bullet Proofing Technology

Ad Design/Repro

Linda Davie
Tel: + 27 (0)31 207 3387
email: DDS@webafrica.org.za

Heather MacKessack
email: macrat@telkomsa.net

Sole Proprietor & Publisher AN Dickson

Post: PO Box 47197, Greyville 4023, South Africa
Website: www.svmag.co.za

ISSN Nos S&V Footwear and Leather Goods 1027-8524
S&V African Leather 2077-9380
S&V Protect 1997-8081

Advertisers in this Issue

BBF Safety Group/Lemaitre (OFC), BBF Safety Group/Lemaitre Urban (02), ProFit Safety Footwear (08), Rebel SafetyGear (06), Selective International Footwear/Kaliber (04).

The Next Issue

Will be out on February 01.



Trade Fairs **Seminars**
Conferences
Range Launches

Do you have an event you want listed in the calendar?
Email tony@svmag.co.za

No charge for associations, R199 + Vat for all others





LEMAITRE
SAFETY FOOTWEAR



URBAN

S3 RATED



S2 treated leather

Bellows tongue

Flame retardant laces

TPU bump cap

Side & Rear reflective strips

APT midsole

PU/Rubber sole

Footology Climate Control Insole

ULTIMATE IN RESISTANCE, PROTECTION AND COMFORT PU/RUBBER

Now part of the Lemaitre brand, the Inyati range offers a tough durable PU/Rubber sole ensuring optimum comfort, durability and protection in some of the toughest conditions. The PU/Rubber sole features high heat, cut and abrasion resistance with an SRC rated slip resistance as well as resistance to water, oil and certain chemicals, ensuring optimal protection in the workplace.

The PU/Rubber sole is ideal for industries such as chemical, petrochemical, high heat environments – road works and tough agricultural and mining environments. The Inyati range features genuine leather uppers allowing you to step out with confidence, knowing your feet will be protected in tough conditions. Giving hard-working feet the protection they deserve in Lemaitre's range of durable safety footwear.



DODGE

TITANIUM



**FROM ONE WORKER
TO ANOTHER**



www.lemaitre.co.za

SOURCED AND MANUFACTURED
IN SOUTH AFRICA

This is the fourth in a series of articles on bullet resistant vests by Deon du Plessis, MD of Bullet Proofing Technology (Pty) Ltd, in which he discusses the most common firearm threats in South Africa, and how those must be used to judge what is and isn't compliant to local standards. His business manufactures a wide range of body armour plates and vehicle armour, and supplies a number of other bullet resistant vest manufacturers.

Every country is different, so our testing standards must reflect the situation here

Threat levels in South Africa

1. Threat Levels in South Africa

The Threat Level regarding BRV's is an analysis of the typical guns and ammunition being used in the country or area in which the body armour will be used. It is an indication of what the types of guns and bullets are that the BRV could encounter. This differs from country to country, time to time and even depends on the type of criminal or military threat applicable. In South Africa the main threat has always been mostly handguns (75%), and this has remained unchanged for the past 30+ years. What has, however, changed is that whereas in the years 1980 – 2010, the other 25% was mostly Soviet-sourced military guns such as the AK-47. This has now changed to our own SAPS (R5) and SANDF (R4) 5,56 x 45 calibre rifles. The LM4 and LM5 civil variants of these guns are also commonly used by security companies. This calibre of bullet (5,56 x 45 Ball) is now the most common rifle threat in South Africa, with the older AK-47s being encountered less.

The current threat scenario in South Africa is based on the analysis of the newest statistics regarding the guns and ammunition used in criminal acts.



Range of some rifle bullets used in specifications.

1. Standards

Our own Ballistic test standard for body armour in South Africa, "SANS 1658:2007 Ballistic Resistance of Body Armour", was based on our own threat scenario when last updated in 2007, but as our threat scenario has changed since then, our SANS specification needs to be updated to reflect this, which is currently underway.

Table 1. Prevalence of illegally used arms in South Africa

To page 5

Calibre	Prevalence (%)	Grouping
.32	16,7	75,5%
.38	23,5	
9mm	19,6	
.45 ACP	6	
All other handguns	9,7	
Shotguns	2,9	2,9%
.223 (5,56 x 45)	14,8	21,6%
AK-47 (7,62 x 39)	5,2	
All other rifles	1,6	

KALIBER

SAFETY FOOTWEAR

TACTICAL BOOTS



www.kaliberfootwear.co.za

In each country this threat scenario is different and is a very good reason not to use specifications from the USA, Europe, UK, China, and Russia to specify the performance of body armour to be used in South Africa. Most of the internationally recognised specifications such as NIJ 0101, UK PSDB, German Technische Richtlinie, CEN prEN ISO 14876-2 and the Russia-GOST R 50744, are all very professional specifications, but none of them reflects our South African threat scenario as it currently is. The NIJ standard sets a very good testing protocol which is practical and repeatable and very good as a reference document for handgun armour, but it lacks severely in its coverage of the current high level (21,6%) of rifle threat in South Africa, which is mostly based on the 5,56 x 45 calibre bullets. This bullet type is not even included in the current version of the American NIJ standard at all!

So, what do we need to consider when deciding what our own Bullet Resistant Vests should be able to protect us against, which might not be specified in international specifications?

- a) Our rifle threat level should include 5,56 x 45 Ball bullets (R4 and R5) at the correct velocities.
- b) Our rifle threat level should still include 7,62 x 39 Ball bullets (AK-47) at the correct velocities, as this is still a very real threat in South Africa.
- c) The NIJ Standard specifies 6 x test shots per hard armour plate, while most of the other standards specify 3 x shot. To this author's knowledge, the most rifle shots ever to impact a body armour plate in an actual case was 3 x shots, so maybe 6 x shots is unreasonable, depending on the implication of this on weight and/or price.
- d) Our own SANS Standard is only a Ballistic Testing standard and is not compulsory. This means that anybody may (and does) sell body armour in South Africa that either complies to no standard, or complies some other country's standard, or, worst of all, complies to their own homemade standard, which is actually no standard at all, but just a misrepresentation to sell sub-standard BRVs to uninformed users. Foremost of these is what has jokingly become known as the "Boksburg Standard", used by many suppliers of steel-based body armour plates to sell their own so-called Level III, Level IV and Level 5 standard products, which are not official or recognised anywhere.
- e) Refer to the bullet types encountered in South Africa. A good example of this is the case of the AK-47 common or Ball bullet. The Soviets needed to make this bullet as cheaply as possible, so the core of the bullet is mild steel, and not lead as in most other bullets. This has the drawback that it causes less damage to human tissue as the mild steel core is too hard to "mushroom", thereby not concentrating all its energy in the target or body. This makes it a less effective "killing" bullet, but it still causes injuries which require hospitalisation, which is its main purpose. Due to its hardness and less mushrooming effect, it is, however, a more penetrating bullet of modern UHMWPE "Ultralight" armour plates. This same bullet is also a very common sporting calibre, for which commercial ammunition with a lead core is used. It now happens that some suppliers, particularly those supplying imported plates, use the lead-cored AK-47 bullets for their testing, while our locally found, Soviet or Chinese sourced AK-47 bullets used by

the criminals have mild steel cores, which are not so easy to stop on lightweight armour plates. This difference between the Western-sourced vs. the Eastern sourced types of AK-47 bullets therefore needs to be well considered and taken note of.



7,62 x 39mm (AK-47)
Low cost, low velocity
•Mild Steel core in Ball bullet •
Hardened Steel core in API bullet

1. Ballistic Testing

While researching, developing, and drafting the American NIJ Standard from 1960 to 1975. The American Government NILECJ organisation (predecessor of the NIJ) developed a ballistic test protocol based on a lot of field study of actual cases. By duplicating them in the test laboratories and evaluating testing systems and equipment, they set the testing protocol used by most standards for testing of body armour today. They based their system on using a large and heavy block of nonhardening oil-based modelling clay (Plastilina as they call it in the Standard). The block should be at least 610mm x 610mm x 140mm of solid clay in a metal or wood box. The weight of this block is at least 88kg, more or less what a human weighs. This clay should have a very specific composition so that its hardness falls within precise parameters when tested in accordance with the requirements of the NIJ Standard. This calibration or hardness verification should be performed every time when performing a test.

This clay block is not an exact replica of the human body but serves as a practical and repeatable simulant. It has the secondary advantage that any shock transferred to the clay (body simulant) leaves a dent in the clay, which can be measured as an indication of the force or "Blunt Trauma" transferred to the body. The maximum dent depth is then also specified as a conformance requirement of the body armour or BRV. This method thereby assures that the body armour can stop the bullet and also absorb the majority of the force of the bullets impacting the armour.

A very important part of the ballistic testing is also to ensure that the bullets used comply to the requirement regarding type, weight and velocity. The velocity of each bullet is therefore measured on every shot to ensure compliance. This is very important as it is very easy to download ammunition to travel at lower velocities than those specified, which is based on what is real in the actual world outside the laboratory. The length of the gun barrel also has a very big influence on the bullet velocity.

As a good example which is very relevant in South Africa, let's discuss the case of the R4, R5 and steel-based To page 7



YOUR HARDEST WORKING SAFETY GEAR

 www.rebelsafetygear.com

REBEL
SAFETY GEAR

armour plates. The R4 and R5 guns are very similar, except that the R5's barrel is shorter than that of the R4. The muzzle velocity of same standard 55gn FMJ bullet fired from an R4 is typically 955m/s while it is only 775m/s when fired from an R5 rifle. This bullet is extremely effective in penetrating armour steel at velocities higher than 930m/s, such as when fired from an R4 rifle. It in fact takes a 9mm thick armour steel plate of 500HBN to stop this bullet. When this same bullet is fired from an R5 rifle, the lower muzzle velocity (shorter barrel) means that even 6mm thick armour steel of the same 500HBN hardness will stop the bullet.

Presenting a ballistic test report, does not mean that all body armour manufactured by this company will pass ballistic testing. The SAPS, SANDF and Correctional Services require random 1/100 ballistic testing on all BRVs supplied to them, which has a cost implication, but does provide surety to the users and covers the company managers and buyers legally. All other test reports presented are merely test reports on BRVs or components as presented for testing. If any buyers wish to obtain surety that the products work, the best way is to make it a supply condition that one or more delivery samples should be randomly selected by the user or independent witnessing authority for inspection and ballistic testing, witnessed by the same independent authority. Armscor QC does this function for the SAPS, SANDF and Correctional Services, at a fee of course.

Testing then



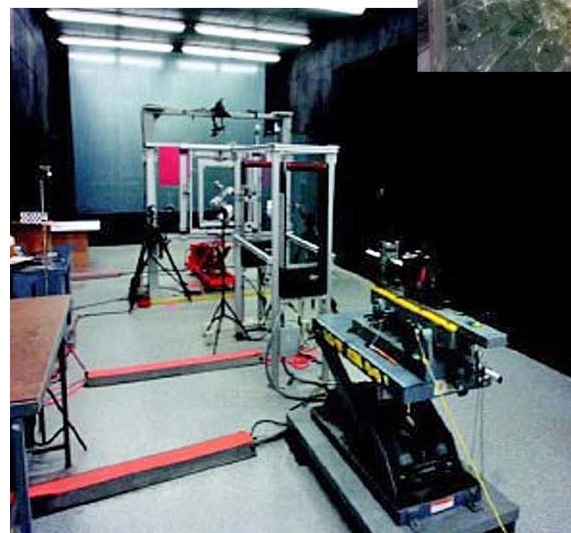
1. Testing authorities

There are not many registered and recognised ballistic testing facilities in South Africa. It is, however, necessary to perform ballistic testing at one of the few recognised facilities to ensure that the testing and measuring is done correctly and that the buyer knows what they are paying for, as well as to ensure that the user can trust

his/her life to the product they are wearing. The recognized testing facilities in South Africa are: -

- a) SABS Ballistic Laboratories. Unfortunately they do not have all the ammunition types available, but they can do commercial testing correctly against most threat levels.
- b) Armscor Quality Control. They do not have their own test facilities but can and do professional ballistic testing witnessing on other ballistic test ranges.
- c) Armscor Armour Development. They are the experts in armour development and testing in South Africa, but unfortunately do not currently have a ballistic testing facility for body armour testing. They can, however, do test witnessing at any of the other ballistic test laboratories.
- d) Private development and testing ranges of body armour manufacturers. Many of the renowned and established body armour manufacturers have their own ballistic test laboratories where they can test correctly. These are currently BBA, Sirdicks, Pasadena, BPT and Zebra-Sun.
- e) Private SANAS-accredited ballistic test laboratory. Currently BPT is the only SANAS-accredited ballistic test laboratory in South Africa. They can perform commercial ballistic acceptance and verification tests for users and manufacturers requiring certified testing results to SANS 1658:2007 (Body Armour), EN1523 (Structures) and STANAG 4569 (vehicles) Standards.
- f) Firing ranges are very prevalent all over South Africa, but these are registered as "firing ranges" and not as body armour testing facilities. These are 2 x very different requirements.

Testing now






PROFIT
SAFETY FOOTWEAR

For Africa's Workforce

Stock and supply chain issues

How have the supply chain issues in the Far East affected imported safety footwear in South Africa? We asked Nick Bryant of ProFit Safety Footwear to explain some of the issues.

There are no easy answers to the problems in the Far East

It's been a very interesting time! As a very unfortunate knock-on effect due to the impact of COVID-19 over the last 18 months, the world has found itself in the middle of the largest shipping crisis in history. As is our duty as an importer, we have been monitoring the ever increasing shipping costs associated with a "perfect storm"; impacting three major factors of this logistic; container booking prices, physical container availability and exacerbated demand on vessels and their shipping lines. In short, container prices have (over the last 6-8 months) doubled, trebled and still increase on a weekly basis. Absorbing these direct impact costs is impossible and unsustainable, so like many other suppliers out there – we have had no choice but to adjust our pricing. We are very fortunate to have taken the decision to double down on stock holdings after last year (2020). And this allowed us to issue our clients with a full 3 months-notice – of adjustments only active in the New Year. It has greatly assisted our highly appreciative distributors. This positive stock position, as a result of spreading and adjusting our procurement channels early on, has proved to be a very fruitful decision.

Things aren't going to ease up in 2022, as China faces a number of issues not dissimilar to those facing South Africa. Half of China's power supply is reliant on coal power stations. Many provinces in China have been suffering rolling blackouts throughout September and October (and they continue). Energy demand in the country has soared as lockdown has eased globally (and international demand for product has surged), but they are

facing huge coal shortages. It's a result of the ongoing conflict between market-orientated coal prices and government controlled electricity rates. Beijing wants the country to be carbon neutral by 2060, so this has slowed the production of coal. But at the same time, electricity demand has risen. Meaning the price of coal has skyrocketed. However, the government controls electricity prices, which has resulted in coal-fired power plants (understandably) unwilling to operate at losses – thereby drastically reducing their output. And hence the rolling blackouts hitting energy-intensive provinces and industries. This has caused their economy to shrink back down to levels last seen in February 2020 – when coronavirus lockdowns crippled the country and its manufacturing. It has also resulted in raw material prices climbing, as demand continues to surge. Pushing up cost prices.

Negotiating these waters, whilst dealing with shipping issues has been very challenging. The Chinese Government and their Electricity Council have stepped up, in order to avert further issues facing their own internal energy demands – over their upcoming winter period. An "at all costs" approach to increase coal production and open procurement supply chains has been implemented. But finding new coal suppliers (like Russia, Australia and bordering Mongolia) isn't easy – as each comes with its own set of logistical issues and already signed supply contracts. There is no quick fix.

Keep your eyes peeled, ears to the ground and your head on a swivel.

Lemaitre expands into new terrains

Press release

Pinetown, KZN, SA - Driven by passion, dedication, and a commitment to high-quality products, Lemaitre has always been a brand committed to keeping those who build South Africa safe. For 30 years, we have helped build a nation with the toughest workforce.

Lemaitre's launch of new styles with modern designs and a refreshed look appealing to a wider audience and targeting new sectors.

That's why we are proud to announce the addition of new styles to our range of safety shoes, designed to offer you more support, comfort and performance in the toughest environments.

Raptor range

Our Raptor range is synonymous with torsion control and keeping you sure-footed in environments where uneven terrain is prevalent, such as construction and agriculture. We've expanded our offering in this range with the **Osprey Hiker** and the **Falcon shoe and boot**.

The Osprey Hiker has a full grain genuine leather upper for enhanced comfort and durability and is perfect for the agricultural industry. The Falcon shoe and boot also made with a genuine leather upper, with TPU inserts in the arch of the foot with enhanced ladder grip design. Their Dual Density PU sole unit and TPU inserts allow for an aggressive grip and torsion control.

Parabolic range

Our Parabolic range comes with a durable polyurethane midsole

and is perfect for workers who need extra support when spending a lot of time on their feet. The Concorde shoe and boot are our latest's offerings in this range, with an S3 rating, provide comfort and alleviate fatigue for workers who spend long hours on their feet in industries such as manufacturing. They also come standard with an anti-penetration midsole (APT) to prevent sharp objects from penetrating the boot.

Maxeco range

Our iconic Maxeco range, a legacy of South African safety footwear, has built-in arch support and is designed for all-around safety. The redesigned Maximus gives you the all-around safety with the addition of a memory foam insole and reflective strip. It has a lightweight sole unit, wider fit and improved ergonomics. The square cleat design of the shoe improves the slip resistance rating and provides better stability and reduced shock impact.

Apollo Range

The Apollo range with SRC slip-resistance rating offers maximum slip-resistance and is suited for environments where slip potential is a high risk. The two new styles added in this range are the Clog and the Ben.

While the Clog has been designed to provide superior slip-resistance to those working in kitchens and hospitals, the Ben

incorporates the benefits of the Apollo sole as well as no metal or hard plastics on the upper which minimises the risk of scratching metal and other smooth surfaces. It is ideal for industries such as manufacturing and automotive.

Inyati Range

New to the Lemaitre range is the Inyati range which offers high heat resistance, cut and abrasion resistance and SRC rated slip resistance and has an injected PU/Rubber sole which provides all-round safety and protection in hazardous working environments. The two new styles to this range are the Dodge and the Urban.

The Dodge has a stylish leather upper and comes with a TPU support system on the outside counter for reinforced support.

The Urban boot is S3 rated and boasts a genuine du-tone leather upper with additional padding on the collar and tongue for enhanced comfort. An anti penetration insole board comes standard with this style.

Our range of products offers a variety of features and benefits for all-round protection, comfort and performance. As a proudly South African brand made for workers, by workers, we understand what is needed to carry you safely through tough industries and working environments. With the expansion of our new range and styles, Lemaitre expands into new terrains.

Lemaitre, from one worker to another....

Work Wear

Sweet-Orr: 150 years later, exporting to the US, where it was founded

Cape Town, W. Cape, SA (08 November 2021) - Since SA's economy was exposed to international competition, South Africa's textile and clothing industries have struggled to hold their own.

Prior to 1994, they accounted for 250 000 jobs. This changed when borders opened, with imported fabric and clothing being produced at a faster pace, at lower prices, using cheaper labour and raw materials. While the new goods were welcomed by South African consumers, local textile companies found the going hard.

One answer has been to move manufacturing out of SA - not necessarily to China. SA's neighbouring states have also benefitted.

Cape-based protective work wear company Sweet-Orr & Lybro instead opted to stay local and aim at a higher market sector.

"Several work wear companies have moved the bulk of operations outside the country to keep their costs under control, with only a local office or small manufacturing plant remaining," says Sweet-Orr & Lybro executive director **Denver Berman-Jacob**.



Denver Berman-Jacob...Treading a different path.

“The company early on identified a niche where quality products would be prized and invested accordingly in knowledge and skills. In the protective work wear sector, clothing has to perform under the harshest conditions. It’s this focus on quality and service delivery – as well as long experience – that has allowed the company to survive and thrive for 150 years, even during the Covid-19 lockdown.

“We’ve always made a point of adapting and diversifying. Just because you’re doing well today, doesn’t mean you’ll be in business tomorrow. It’s our job to move with the times and remain relevant. You need to think and act differently all the time to have a sustainable future.”

The company has an unusual history.

It was founded in Wappingers Falls, New York state, in 1871 when **James Orr** and his nephews, **Clayton** and **Clinton Sweet**, identified the need for work wear which labourers could buy off the shelf rather than tailoring their own. Sweet-Orr was possibly the first commercial manufacturer of blue jeans, according to the *New York Times*, and supplied official uniforms to the US armed forces and Boy Scouts Association for over 100 years.

In 1931, it established offices in South Africa, diversifying the business in the wake of the Great Depression. In partnership with UK brand Lybro, Sweet-Orr & Lybro was born with offices in Woodstock, Cape Town. In 1969, Sweet-Orr opened its current 5500 m² premises in Elsie’s River, with production capacity of 3 500 garments per day. Today, all Sweet-Orr & Lybro garments are manufactured here, and the company is wholly South African owned.

Sweet-Orr & Lybro was the first manufacturer in South Africa to triple-stitch lapped seams and incorporate hemmed pockets and bar-tacked stress points – innovations that further strengthen garments and prevent rips or tears which could catch on machinery and cause serious harm. And in 1978, Sweet-Orr became the first local clothing manufacturer to be awarded the

South African Bureau of Standards’ mark-bearing certification SANS 434 (SABS).

Sweet-Orr has an in-house training academy whose graduates are employed within the company. It is also registered with the Fibre Processing & Manufacturing Sector Education and Training Authority (FP&M SETA) and offers learnership programmes under the auspices of the SETA.

Sweet-Orr’s customers include mining, petrochemicals, engineering, automotive, hospitality, healthcare and the military. This diversity means that Sweet-Orr pays particular attention to requirements and regulations affecting its customers to produce intricate garments of the highest quality.

Alongside the broader customer base, there is also a wider product range offering protection from head to toe. Sweet-Orr offers personal protective equipment as well as essential work wear, utility work wear, denim and specialised work wear including flame retardant, acid-repellent, arc flash and flame-acid work wear for high-risk environments.

While continuously expanding its client base and product range, the company has moved from being a traditional single-channel sales business towards a multi-channel sales business with a robust e-commerce presence – including Takealot, website sales, and a showroom in Boksburg.

Sweet-Orr currently distributes garments across the Southern African Development Community region (SADC) as well as in the United Arab Emirates. The company is also looking into agreements with other countries in Africa and has re-entered the United States.

“As one of South Africa’s oldest manufacturers of protective work wear, being able to once again serve the very country where we once originated is incredibly exciting. Making the circle full is a tremendous feat,” says Berman-Jacob.

Over 4500 entries, divided into:

- Leather • Components & Services
- Footwear & Leather Goods
- Commission Agents, • Retailers
- Associations & Support Organisations
- and much, much more

The abridged Directory lists business names and their principal phone numbers.

The comprehensive Directory, which lists the names of personnel, cell numbers, emails, descriptions of products & services, and much more, is also available by subscription only. Email tony@svmag.co.za.

Click **HERE** to view.

ISO40001 compliance is a business asset that shouldn't be wasted.

Integrating international health and safety standards saves money and minimises risk



Louise Woodburn...A standard which can save lives.

**By Louise Woodburn,
General Manager at
KBC Risk Solutions**

**Randburg, Gauteng, SA
(27 September 2021) -**

Maintaining a healthy and safe working environment is a requirement by law, with the Occupational Health and Safety (OHS) Act in effect in South Africa. However, while compliance with the OHS Act is mandatory, there are also international standards that businesses can and should be adhering to, specifically

ISO45001. Certification to the standard proves that businesses are meeting their moral, financial and legal obligations around health and safety to the highest levels. Not only that, however, it can also make businesses more efficient, more productive, and ultimately more profitable as a result.

People are a business' most crucial asset

According to the International Labour Organisation, more than 7 600 people die from work-related accidents or diseases every single day. Without people, businesses simply cannot function. It is therefore in the best interest of any business to ensure that the highest possible levels of health and safety standards are adhered to.

The ISO45001 standard was developed by the International Standards Organisation to address this very issue, and it has the potential to save almost 3 million lives each year. For organisations that work across geographies, the ISO45001 certification ensures that a minimum standard can be set for all business entities. It replaces the previous OSHA 18000 from the British Standards Authority, effective from 2018, with upgraded principles to make it more risk-based. The deadline to convert the OSHA 18000 certification to the new international standard has been extended to the end of September 2021.

Not just a compliance exercise

While some organisations specify ISO45001 compliance as a prerequisite for doing business, the international standard is not legally enforceable. In South Africa, however, there is a new Occupational Health and Safety bill in the pipeline, which mandates that a formal health and safety system be put into place. Organisations that comply with the ISO45001 standard will be

ahead of the game, as they will automatically abide by this new requirement.

Health and safety is not just about compliance though. ISO45001 certification can be hugely beneficial for a number of reasons. By reducing workplace accidents, organisations improve their risk profile as well as both direct and indirect costs associated with incidents. Indirectly, insurance premiums are reduced when fewer accidents occur, which also saves money. In addition, less downtime from injuries and illness boosts productivity and efficiency. While certification to the standard may not be necessary for every business, adhering to the principles makes sense for any organisation, no matter what size or industry.

The certification process

The ISO45001 standard centres on implementing a formal system to manage health and safety on a proactive basis. The first step in certification is to perform a gap analysis on the current systems, policies and procedures, and then to standardise clausal procedures that meet the requirements of the standard for a particular business. These differ depending on the nature of the organisation as well as various other factors, for example, a mining enterprise will have vastly different requirements to a financial services firm.

Once the gap analysis is complete, an initial audit is performed to review paper-based evidence. Once this is passed, a three-month implementation is followed to ensure the standards developed can be put into place. A second-level audit is then performed to ensure physical compliance with the policies and procedures that have been developed and implemented. If this is all in order, the ISO45001 certification will be issued, and the business will operate in a surveillance period for a year, after which certain standards will be audited in-depth. After the second year, other standards will be assessed, and then every third year the entire certification process must be undergone once more.

Not as complex as it seems

While the accreditation and certification process appears to be overly complex and unattainable, the right partner can vastly simplify matters by ensuring that existing processes can be formalised and that the process followed fits the needs of the business. In addition, an expert partner can help organisations to integrate ISO45001 with other ISO standards, including ISO9000 for quality control and ISO14000 for environmental management.

There is also a perception that ISO45001 is only for large enterprises, however, there is immense value in proactive health and safety for entities of all sizes. The standard provides for a formal process and a legal framework to manage risk and ensures that health and safety become an integral part of business rather than an afterthought, with major benefits to productivity and profitability.

03 November to 03 December was 'National Disability Rights Awareness Month', in case you missed it. The truth is the disabled need access to public - and private - buildings 12 months a year.

Making buildings disability friendly 'is easier than you think'

Cape Town, W. Cape, SA - Approximately 5 million South Africans (around 10% of the population), and 1 billion people globally (about 15% of the world's population) are disabled, according to **André Michau**, director of specialist advisors to the built environment, Afroteq Advisory.

South Africa's constitution states, in the Bill of Rights, that "everyone is equal before the law and has the right to equal protection and benefit of the law." No person or body, including the State and private companies, may unfairly discriminate directly or indirectly against any person on one or more grounds including race, gender, colour, age or disability.

The UN also states that employment and working conditions must be responsive to accessibility and inclusive to persons with disabilities. Employers and workplaces must provide user-friendly environments and reasonable workplace adjustments based on the individual needs of their employees with disabilities.

"Statistics pertaining to the employment of people with disabilities in South Africa, indicate that the country is falling far short of the national target and international benchmarks," he says.

"As a nation, we need to look critically at our corporate and commercial spaces to make sure they accommodate the special needs of these citizens. It is our civic duty to remove any barriers to entry that might make it difficult or hard for them to contribute to the economy and compete fairly in the job market.

"The corporate and professional world still has a long way to go when it comes to levelling the playing field and creating an inclusive environment for people living with disabilities. Only recently we saw how Israel's Energy Minister, **Karine Elharrar**, was unable to participate in the United Nation's COP26 summit held in Glasgow due to the fact that the venue was not wheelchair accessible, and that the shuttle which transported delegates to the event was also not suited for a wheelchair. All of this highlights the need to become truly mindful about transforming places of work and public spaces so that they are truly accommodating to everybody's needs.

"An inaccessible built environment directly impacts on a person with disabilities' ability to access healthcare and other much-needed services. This is particularly true if they are not able to use public transportation. Many buildings – including healthcare facilities – are not built with universal design principles in mind. Buildings that do not have ramps or grab rails, for example, generally pose significant challenges for persons with mobility impairments."

There are several obstacles that could potentially be barriers for persons who have mobility, intellectual and visual impairments, which result in their increased vulnerability. These include uneven, loose or rocky surfaces, steps, steep inclines, escalators, bollards, turnstiles, revolving doors, display boards or bins.

Light switches, power plugs and lift buttons that are too high for somebody in a wheelchair are a problem.

Consider also a reception counter that is wheelchair friendly.

"We encourage businesses to take a critical look at their office space and judge it from the perspective of somebody who is disabled. In the same way our nation is becoming environmentally conscious, sustainable and responsible, we also need to become socially sensitive, caring and accountable by becoming mindful about making our public and corporate spaces accessible and inclusive. Doing it need not be an overwhelming task - simply start by doing what's necessary; then do what's possible; and before you know it, we've done the impossible."

Afroteq Advisory assists companies in transforming their workplaces into spaces that are accessible, safe and welcoming to differently-abled employees and visitors. Afroteq Advisory conducts accessibility audits to evaluate companies' universal access and compliance to legislation. - <https://www.afroteq.co.za/>



Making areas accessible "need not be an overwhelming task - simply start by doing what's necessary; then do what's possible; and before you know it, we've done the impossible."



Microban International announces a new range of antiviral technologies

Huntersville, NC, US - Microban International, which produces antimicrobial solutions, odour control and residual sanitisation/disinfection solutions, has launched a new range of antiviral technologies that are proven to reduce viral loading on products and surfaces. Microban services a wide range of sectors – from consumer and healthcare to industrial and construction – and this adds to the versatility of the company's technology portfolio.

Microban technology can be incorporated into various materials during manufacturing, becoming part of the product's structure to provide inherent and enduring protection from microbes. Recent data demonstrates that new antiviral technologies from Microban conform to both ISO 18184 – which assesses the antiviral performance of treated textile products, such as woven and knitted fabrics, fibres, yarns, and braids – and ISO 21702, which measures activity in treated plastics and other non-porous surfaces. Thorough testing was performed to evaluate the efficacy of each product type against many viruses, including bacteriophage Phi6, an important surrogate virus for SARS-CoV-2. The results showed that articles treated with these technologies can now benefit from reduced viral loading* by up to 99 %.

Antiviral technologies from Microban inhibit the viruses' ability to remain viable on surfaces. The modes of action vary, disrupting the structure of either the outer protein coat – to prevent viruses from recognising or binding to host cells – or nucleic acid payload, to prevent viral replication. This gives manufacturers a valuable product feature and provides consumers with added peace of mind.

Michael Ruby, President of Microban International, explained: "Assessing antiviral efficacy in treated products to

a standard that meets the complex regulatory landscape is an arduous process, but we have been confident that our solutions conformed to the ISO standards. Our research team and in-house regulatory department worked to ensure that the technology is recognised as effective and compliant across various markets, to support partners with their claims and give customers confidence in products protected with Microban antiviral technology."

Following the start of the COVID-19 pandemic, there was a monumental upsurge in demand for antiviral technology in products, and it is readily acknowledged that Microban was not the first in the industry to make antiviral claims. Instead, the company invested a considerable amount of time and resources to ensure that its antiviral technologies were not only scientifically proven to be effective in reducing viral loading on surfaces and products, but that they could also be used in a regulatory compliant manner by brands and manufacturers across a variety of territories and product types. Microban is committed to being a reliable and trusted industry leader, and its regulatory expertise can help to ensure that partners are aware of the implications that antiviral claims can have on their product types in the countries where they are being sold. - www.microban.com/antiviral/technologies

**Antiviral efficacy may vary depending on substrate type, application dosage of the treatment, impurities, and application procedure. Only Microban antiviral technologies that are registered with US EPA and are EU BPR compliant are being offered for sale. In the US, antiviral technologies may only be incorporated into products that are or will be registered with the US EPA.*

'A breakthrough method for evaluating odour control capabilities in the textiles industry'

St Neots, Cambridgeshire, UK - Microban International welcomes the recently approved AATCC test method – TM211-2021 – that has been developed to support the textiles industry. This novel and strategically important, standardized Drager method measures the reduction of odour on materials treated with antimicrobial technologies, and partners well with existing textile test methods such as the AATCC TM100, to show the correlation between bacterial reduction and odour control. Microban was one of the early adopters of this groundbreaking method that can for the first time provide a truly quantitative evaluation of the valuable, real-world and functional benefits of antimicrobial chemistries by quantifying odour reduction.

Antimicrobial technologies in textiles provide a proactive solution for preventing 'permastink' – the enduring odours created by the metabolism of sweat by skin flora that often persist on clothes after cleaning. These odour control formulations work on the understanding that reducing the growth of microbial populations on textiles will subsequently reduce odours generated from bacterial activity. The AATCC TM 211-2021 test method is an innovative, objective method that can articulate the efficacy of odour control technologies and provide definitive scientific evidence for these claims. Additionally, this highly sensitive test gives real-time and visual depictions of ammonia levels – created by bacterial metabolic pathways – on a colorimetric scale, in under 48 hours. The biological system can be used across the textile industry for

assessing the odour capture propensity of both antimicrobial-based technologies, and other odour-reducing techniques.

Erika Simmons, technical director at the AATCC, explained: "RA31 has introduced a new odour method with the addition of TM211. This new method provides a quantifiable means for evaluating the reduction of odour generated from textiles treated with antibacterial finishes. This method offers a much-needed standard for addressing odour as a factor in antibacterial finish performance. AATCC is proud of this new method and the doors it opens to innovation down the road."

Dr. Ivan Ong, vice president of research and development at Microban International, commented: "This is a hugely important and necessary scientific advancement, not only for our company but for the entire textiles industry. Being able to quantify odour control technology quickly and accurately can help to communicate these benefits to the end user, as well as expand our understanding of the mechanisms used to inhibit bacterial metabolism. This is all part of our ongoing commitment to developing scientifically-backed technologies for products that are cleaner, fresher and more valuable to the customer."

To find out more, watch the video about the AATCC testing method: <https://www.youtube.com/watch?v=KfD6EACCY1Q>

Quat-silane polymer system to control the growth of unwanted bacteria

Sanitized Puretec technology delivers antimicrobial performance for all fibre types

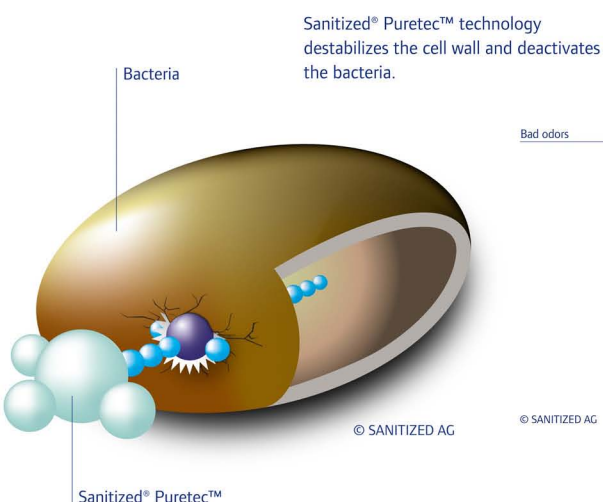
Burgdorf, Switzerland (23 November 2021) - Sanitized AG, which specialises in antimicrobial solutions for textiles, has launched a new product portfolio, Sanitized Puretec, which is a non-leaching, metal-free and particle-free antimicrobial solution for textiles to prevent the buildup of odour-causing bacteria. The technology provides long-lasting effects without release of the active ingredient, making it a safe and sustainable solution after many washes.

Fueled by the search for more sustainable antimicrobial solutions, marketplace demands for effective metal-free and particle-free odour control technologies have increased. The developers at Sanitized have managed to advance the durability and efficacy of Sanitized Puretec, a family of quaternary silane (quat-silane) based antimicrobial finishes which meet these demands. Due to the active's non-leaching nature, the quat-silane technology remains affixed to the fabric's surface. Puretec technology has shown excellent performance on all fibre types, especially synthetic fibres like polyesters. It enhances the functionality of textiles by utilising the high cationic charge density of a fully polymerized siloxane polymer network to reduce the microorganism on contact.

A durable solution for sportswear

Sanitized Puretec offers a unique solution for brands and retailers producing synthetic sportswear by allowing consumers to wear the products they love for longer periods of time before having to wash them again. This provides brands and activewear users with peace of mind by delivering long-lasting freshness on textiles. From hitting the gym to running errands, the technology allows consumers to remain confident and comfortable even throughout their busiest days.

Sanitized Puretec technology destabilises the cell wall and deactivates the bacteria.



Odour control, fabric deterioration prevention, extended durability

Preventing bacterial growth does not only significantly reduce odour formation but simultaneously protects the textile from bacteria induced deterioration and discoloration, all of which can jeopardize the durability of the product.

As demonstrated in various microbiological tests, Sanitized Puretec guarantees optimal odour control performance—even with ongoing washing and wearing. The product portfolio delivers added value to textiles by easing product maintenance and enhancing usability and performance.

Technical advantages

Sanitized Puretec technology can be easily integrated into existing application techniques such as pad and exhaust and is compatible with other functional performance finishes. It exhibits excellent wash fastness and temperature stability and is dermatologically tested to be non-sensitizing to the human skin, making it safe for an abundance of textile applications.

Verifying antimicrobial performance

Properly treated quat-silane surfaces can deliver broad spectrum, durable antimicrobial properties to prevent bacterial attachment and biofilm formation on fabrics. Utilizing appropriate test methods is critical to accurately measure and verify the microbiological performance of quaternary silane technologies. Sanitized Puretec odour control solutions have been tested through 40 washes using ASTM E3162-18, the industry standard wash durability method approved by the International Antimicrobial Council (IAC). As for the microbiological test method, the IAC recommends ASTM E2149-20 for the Puretec technology. Using IAC Certified laboratories with IAC verified test reports, brands and retailers can be assured that products have been tested by trained and proficient microbiology professionals.



Nestlé East and Southern Africa Region (ESAR) in November unveiled an industrial scale pilot project that has successfully tested a global-first, Artificial Intelligence technology in Africa that reduces emissions and saves water, at its Babelegi factory in Pretoria. The industrial scale pilot project is a partnership with The Emissions Capture Company (ECCO) using its proprietary WhiteBox™ technology, a machine-learning based system that captures Scope 1 carbon dioxide (CO₂) emissions and recycles wastewater.

Nestlé announces industry-first pilot that reduces carbon dioxide emissions and recycles wastewater

In partnership with The Emissions Capture Company, Nestlé has successfully piloted leading machine learning-based technology in Babelegi, at industrial scale, to deliver significant Scope 1 emission reductions, and wastewater recycling

Johannesburg, Gauteng, SA - Nestlé East and Southern Africa Region (ESAR) has unveiled an industrial scale pilot project that has successfully tested a global-first, Artificial Intelligence technology in Africa that reduces emissions and saves water, at its Babelegi factory in Pretoria. The industrial scale pilot project is a partnership with The Emissions Capture Company (ECCO) using its proprietary WhiteBox technology, a machine-learning based system that captures Scope 1 carbon dioxide (CO₂) emissions and recycles wastewater.

Speaking on the partnership, **Saint-Francis Tohlang**, corporate communications and public affairs director at Nestlé ESAR, said: "Our global commitment to reduce our impact on the environment influences every part of our business today. This partnership with ECCO demonstrates a significant evolution of our production processes to embrace circular principles at every step. We are extremely proud to be pioneering this industry-first technology on the African continent. This success takes us to the next phase, where we will be looking to scale this operation to other factories to deliver significant reductions in Scope 1 emissions in ESAR."

The WhiteBox set-up in Babelegi has been in successful operation for over 8,000 hours. The technology captures CO₂ from flue gas emissions, recycles industrial wastewater and creates sustainable green products. The green products can be sold directly (for animal feed, human food, consumer goods, cosmetics and pharmaceuticals) or used to eliminate sulphur dioxide (SO₂) emissions without the need for water. Data collected from the industrial scale pilot coupled with industry-first machine learning techniques, demonstrates that the WhiteBox can be calibrated to capture between 25% to 70% of Scope 1 CO₂ emissions and recycle available industrial wastewater per site. Much of this is done through direct air capture and energy-efficient gas processing, using low-fuel consumption methods.

"We are proud to have partnered with Nestlé in successfully demonstrating

the capabilities of our cutting-edge technology set. ECCO uses green chemistry and Artificial Intelligence to extract CO₂ from emissions, using it as an ingredient in everyday products. This partnership helps pave the way for a green economy. Our approach was holistic, ensuring that pollution remediation was key, along with other considerations such as water recycling and low fuel consumption. By design, the shift from legacy technologies to low carbon emission processes also improves livelihoods through employment creation, training, and upskilling," says **Thomas F. Darden**, ECCO's CEO and founding board member of William McDonough's Cradle to Cradle Products Innovation Institute and board member for Yale Center for Environmental Law & Policy.

"The industrial scale pilot project directly upskilled and employed 15 people from the local community and has the potential to create more jobs when scaled. Part of the operation has also included skills development for the rest of our staff at the facility to ensure a just transition to low emission operations, with no one left behind," concluded Tohlang.

ECCO's WhiteBox joins several ongoing long-term projects under Nestlé's RE sustainability initiative, that reinforces the company's sustainability initiatives, strategies as well as its resources to help mitigate sustainability challenges such as waste reduction

The WhiteBox at Nestlé's Babelegi plant.



SARS tackles non-compliant PPE companies

Pretoria, Gauteng, SA (08 October 2021) – The South African Revenue Service (SARS) has recently been focussing on 52 non-compliant companies that received R1-billion in contracts for the supply of personal protective equipment (PPE) and other Covid-19 related services.

To date, 11 companies have been convicted, 7 cases are currently on the court roll, 29 cases are with the National Prosecution Authority (NPA) for the drafting of charge sheets and/or warrant of arrests, while 5 case dockets are being processed by the Hawks.

The 11 that have been convicted and sentenced are: Insimu Consulting (Pty) Ltd, Insimu Projects (Pty) Ltd, Mangaliso Projects (Pty) Ltd, Zendalo Consulting (Pty) Ltd, Lisondalo (Pty) Ltd, Ngome Steam Pot (Pty) Ltd, Ntente Trading (Pty) Ltd, Umunyeovou Trading Pty Ltd, Velakabusha General Trading 2 cc, Info Tech Evolution Pty Ltd, Bhomela General Trading Pty Ltd, Glen Vida Footwear cc.

SARS has recovered R170-million in unpaid taxes inked to PPE contracts and R500-million in assets (including cash) are under preservation orders. SARS is also investigating 33 entities linked to politically exposed persons.

In addition, several companies that received government tenders totalling R50-million for Covid-19 related services were recently sentenced for not registering for Value-Added Tax (VAT).

The companies were awarded tenders for decontamination and deep cleansing of schools by the Gauteng Department of Education. Another company was awarded a tender by the KwaZulu-Natal Department of Social Development for provision of hygiene equipment and consumables.

The companies were convicted and sentenced in the Durban District Court last week. The sentences range from five months to ten months imprisonment (with the option of a fine). The cases follow similar convictions in Gauteng and Free State.

The Fusion Centre, established by government, has been the responsibility of coordinating the law enforcement response to allegations of corruption, or related activities, including maladministration of funds in respect of the relief and containment interventions. The collaboration between SARS and other agencies resulted in the seizure of R41-million in assets and cash linked to the entities mentioned above.

SARS Commissioner **Edward Kieswetter** said SARS is committed to working with all enforcement agencies to ensure increasing tax and customs compliance.

“The organization will not tire from pursuing those that abdicate their legal obligations by not registering for Value-Added Tax, which is essential for qualifying companies conducting business in both the private and public sectors.

“It seems to be patently obvious that some companies are operating outside the law, seeking to profit from a devastating pandemic that is affecting the lives and livelihoods of millions of South Africans, especially the poor and vulnerable. Sadly, most of the looted funds are being used to finance lavish lifestyles,” he said.

SARS has a keen interest in mismatched income and expenditure and incongruent cash flows. Vendors must ensure that their VAT affairs are in order – not only where returns are outstanding, but that the income streams, especially payments from contracts can be matched with the VAT that would be due and payable.

“SARS will continue to detect and make it costly for those that engage in this form of non-compliance. Government relies on SARS to collect taxes so as to provide services such as social relief to older persons, vulnerable individuals and households. A tax crime is in reality a crime that robs the poor and vulnerable.”

Western Cape healthcare products distributor agrees to pay a penalty for alleged cartel conduct

Cape Town, W. Cape, SA (18 October 2021) - A Western Cape distributor of healthcare products has agreed to pay a penalty of R20 000 for allegedly colluding on a provincial Health Department tender. The tender related to the supply of diagnostic sets to hospitals and health institutions under the Western Cape Department's control (clinicians use diagnostic sets to examine patients' eyes, ears, noses and throats).

In terms of a consent agreement, concluded between BMS Medical cc and the Competition Commission, BMS Medical also agrees to implement a competition law compliance programme. Furthermore, BMS Medical undertakes to refrain from engaging in any anti-competitive conduct, in contravention of the Competition Act, in future. The consent agreement has been confirmed as an order by the Tribunal.

Although BMS Medical has agreed to the terms of the consent agreement, it does not admit that it contravened the Act, as alleged by the Commission. The Commission, in turn, has agreed to enter into the consent agreement with BMS Medical without an admission of liability, based on, among others, the following factors, read with the remedies contained in the consent agreement:

* BMS Medical is a small firm;

* The tender was small i.e., estimated at R1 000 000 for three years;

* BMS Medical did not actually win the tender in question; and

* BMS Medical is a first-time offender and has not contravened the Act before.

In September, the Tribunal also confirmed a consent agreement between the Commission and M. Meyer Surgical Sales cc t/a Intermed, regarding the same tender.

Case background: In September 2019, the Commission received a complaint from the Department of Health Western Cape. It had alleged that competitors, Intermed and BMS Medical, colluded when tendering for the supply of diagnostic sets. There were similarities in the tender documents which led the Department to believe that Intermed and BMS had colluded with each other.

The Commission's investigation found that around June 2018, Intermed and BMS had indeed assisted each other when completing their tender documents. The Commission concluded that this conduct amounted to collusive tendering in contravention of section 4(1)(b)(iii) of the Act.

Changes to Compensation for Occupational Injuries and Diseases Act (COIDA)

'Dysfunctional' Compensation Fund slammed for attempt to cut third party administrators from payment process

Pretoria, Gauteng, SA - On 19 October, the Department of Employment & Labour gazetted changes to 'banking information requirements for occupational injuries and diseases related claims' in terms of the Compensation for Occupational Injuries and Diseases Act (COIDA).

The notice* reads, in part:

Medical Claims The Compensation Fund will no longer be accept banking details and nominated bank accounts of agents and other representatives other than that of the Medical Service Provider or the Healthcare Organisation which provided the service to the injured or diseased beneficiary. The Fund will only accept banking details which belong to the Medical Service Provider or the Healthcare Organisation.

Any claims submitted that do not match and/or comply with the requirements above will experience delays and/or rejection by the Fund until the correct banking or verification of the details of the Medical Service Provider or claimants have been completed.

Compensation Claims and Pensions *The Compensation Fund will not accept banking details and nominated bank accounts of agents and other representatives other than that of the injured or diseased beneficiary and/or the COIDA Pensioner who qualifies for the benefits in terms of the COIDA Act.*

Any claims submitted that do not match and/or comply with the requirements above will experience delays and/or rejection by the Fund until the correct banking or verification of the details of the Medical Service Provider or claimants have been completed.

The National Employers Association of SA (NEASA), the South African Medical Association (SAMA), the Injured Workers' Action Group (IWAG), and the United Domestic Workers of South Africa (UDWOSA), saw that as an attempt to cut 'third party administrators' out of the system.

Third party administrators are businesses which exist because the Department's Compensation Fund is a slow payer. So anyone in the occupational injuries and diseases 'value chain' - workers, medicals aids, medical staff - who wants payment more quickly can approach a third party administrator who will pay out, for a percentage of the bill.

Following open letters against the change by NEASA and SAMA, the Minister of Employment and Labour called a meeting between himself, the Compensation Fund Commissioner, and the 4 organisations.

After the meeting, **Rona Bekker**, a senior policy advisor at NEASA, issued this press release:

On 23 November 2021, NEASA, together with the South African Medical Association (SAMA), the Injured Workers' Action Group (IWAG), and the United Domestic Workers of South Africa (UDWOSA), met with the Minister of Employment and Labour and the Compensation Fund Commissioner, regarding the latest rules to the Compensation for Occupational Injuries and Diseases Act (COIDA).

The main purpose of the meeting was to discuss the destructive and contradictory rules to the COIDA, as issued on 19 October 2021. NEASA, in conjunction with IWAG, SAMA and UDWOSA launched a campaign against the implementation of these rules, due to the rules effectively prohibiting the cession of medical claims by Medical Service Providers (MSPs) to third party administrators.

During said meeting, both the Minister and the Commissioner confirmed that the Compensation Fund does not harbour the intent to remove the functionality currently provided by the third parties to the COIDA industry and value chain. However, no explanation was forthcoming as to the purpose of the proposed rules.

One positive outcome of the meeting was that the Minister instructed the Compensation Fund Commissioner that, prior to the implementation of any rules which may have a detrimental effect on the beneficiaries of the Compensation Fund, the Fund must consult with the groups present in the meeting (NEASA, IWAG, SAMA and UDWOSA).

NEASA now awaits further information and communication from the Compensation Fund on consultations to be scheduled with the relevant parties prior to 19 December 2021, as instructed by the Minister.

We will keep employers abreast of the developments in this regard.

On 30 December, however, NEASA arranged a discussion with IWAG and one of the affected third party administrators, Compsol, and Bekker issued a second release:

On 30 November 2021, NEASA hosted a panel discussion on the Compensation for Occupational Injuries and Diseases Act (COIDA) Amendment Bill, the rules issued in terms of the Act and matters incidental to the Compensation Fund. The panellists were the national manager of the National Employers' Association of South Africa (NEASA), **Jaco Swart**, **Tim Hughes**, spokesperson for the Injured Workers' Action Group (IWAG) and **Fritz Lüttich**, MD of third-party administrator, Compsol.

The main points of discussion included the general dysfunctionality of the Fund throughout the years, the build-up to the COIDA Amendment Bill, the issuing of the two sets of rules to the COIDA and the combined campaigns against the rules by the respective stakeholder parties.

The backdrop and foundation of the discussion was the current and long-standing dysfunctionality at the Fund, which necessitated the development and existence of third-party administrators in the first instance.

Despite the false statements in an open letter by the Compensation Fund Commissioner on 29 November 2021, that "... the portrayal of the fund as dysfunctional could not be further from the truth", the fact remains that the Fund has received more than 10 years of qualified audits from the Auditor-General.

To add to the depraved reputation of the Compensation Fund, Parliament's public finance watchdog, the Standing Committee on Public Accounts (Scopa), has ordered the Minister of Employment and Labour to conduct a full-scale forensic investigation into the Fund, and furthermore, the Scopa chair, instructed the Minister to conduct a performance assessment on his Director-General, **Thobile Lamati**, and Compensation Fund Commissioner, **Vuyo Mafata**, to establish their respective fitness to hold office. This is clearly an indictment of the Fund's capability to execute its mandate effectively and efficiently.

The Commissioner, in the same open letter, stated "... all I have heard and seen in articles has been the said organisation (IWAG) representing the interests of third parties, particularly the pre-funding administrators, with no mention of the plight of workers who are injured at work".

In contradiction to this false accusation by the Commissioner, Hughes confirmed that the rights of and benefits to the injured workers is the most important element of the compensation value-chain. Throughout the panel discussion, he emphasized that IWAG's campaign against the prohibition of cession of medical claims by Medical Service Providers (MSPs) is precisely aimed at protecting injured workers, by ensuring that the MSPs do not, based on their objection against claiming from the dysfunctional Fund themselves (due to the complexity and non-functionality of the claiming processes, coupled with the average turnaround time of approximately a year), refuse the further treatment of injury-on-duty patients.

The Commissioner's statement that "a well-functioning Compensation Fund will mean that pre-funding administrators, and by implication their lobbyist, will cease to exist. It is therefore not surprising that they have nothing positive to say about any changes the fund makes that are designed to serve its clients better", borders on absurdity. Firstly, the proof of the Fund's lack of functionality is abundant and overwhelming, whilst the lobbyist for the use and existence of pre-funding administrators, to the benefit of the entire value-chain, will never "cease to exist" as claimed by the Commissioner.

From his further statement about the "changes the fund makes", it can be deduced that the Fund indeed intends on drastically changing the claims processes – by prohibiting cessions – unfortunately to the detriment of all interested parties in this industry.

From the panel discussion, it became clear that there was no rationale behind the Compensation Fund's sidestepping and circumvention of the Parliamentary Committee's decision to allow for the ceding of medical claims. Lüttich confirmed that the Commissioner's bad faith was evident when he signed the rules to the COIDA, effectively preventing third-party administrators from transacting with the Fund, prior to the amendment of the controversial clause 43(4) of the COIDA Amendment Bill by Parliament.

The Commissioner's disregard for parliamentary processes, democracy, accountability and transparency, was clear from the fact that he signed the 'new rules' (which are exactly the same as the previous rules), on the same day he withdrew the 'old rules'. The Commissioner knew full well that he is attempting to remove the function and role of third-party administrators with this rule, in contradiction to the COIDA Amendment Bill and Parliament's decision.

The intent of the Compensation Fund behind their actions is unclear, as the Commissioner in both his open letter and during a meeting with the Minister of Employment and Labour and the stakeholders on 23 November 2021, repeatedly confirmed that "... the fund is not opposed to any healthcare provider using a third party to assist with the administration of its claims against the fund", yet the wording of the rules to the COIDA causes the impossibility of the third-parties transacting with the Fund in any manner.

Hughes indicated that he, to date, has not received any response from the Compensation Fund in respect of proposed dates for further meetings in this regard. - rona@neasa.co.za

* (For the full text, go to file:///C:/Users/User/AppData/Local/Microsoft/Windows/INetCache/Content.Outlook/KC12BTFC/CF%20regulations%20October%202021%2045344%2019-10%20EmployLabour%20-%20Banking%20Details%20Public%20Comment.pdf)

The Fraunhofer-Gesellschaft, headquartered in Germany, describes itself as the world's leading applied research organization. With its focus on developing key technologies that are vital for the future and enabling the commercial exploitation of this work by business and industry, Fraunhofer plays a central role in the innovation process. Health, safety and PPE are frequently part of its research.

Medical engineering

Welcome to the ear canal! Smart applications for industry and production right in your ear

Oldenburg, Germany - A small Hearable in the ear is intended to combine various technologies of the Fraunhofer Institute for Digital Media Technology IDMT. In areas where hearing protection is worn anyway, it simultaneously offers an AI platform for intelligible communication, voice control and speech-based documentation, as well as acoustic monitoring for quality control.

The Hearable for the smart industrial workplace aims to improve collaboration between people and machines - a big task for a small in-ear device.

Dr. Jan Rennies-Hochmuth, head of Personalized Hearing Systems at the Fraunhofer IDMT, Division Hearing, Speech and Audio Technology in Oldenburg. The individual functionalities of the smart in-ear solution are presented with the help of application-related scenarios and March 30, 2021 || Page 2 | 7 FRAUNHOFER INSTITUTE FOR DIGITAL MEDIA TECHNOLOGY IDMT demonstrations. Visitors hear through the Hearable in the ear of an artificial head and can experience its added value for themselves. Communication at the noise workplace

A team meeting on the production floor, possibly directly at the machine, is not uncommon. In the Hearable for the smart industrial workplace, the institute's algorithms enable natural speech exchange in noisy environments. Microphones on and in the ear ensure optimal recording of audio and speech signals.

"Subsequent optimization using machine learning methods also benefits people with hearing loss. In addition, the intelligent dampening of sounds and highlighting of speech protects hearing and voice and makes communication much easier," Dr. Rennies-Hochmuth explains.

Voice control and documentation The AI-based developments mean that noisy environments are no longer an obstacle - not only for team communication but also with machines. Especially the internal microphones in the Hearable have great potential for voice control in industrial environments. The voice recordings in the ear canal in combination with the robust solutions for speech recognition developed in Oldenburg allow machines to be reliably controlled by voice commands even in noisy environments. This also applies to the voice-based documentation of process steps. It saves employees a lot of time, frees their hands for the essentials and can make the workplace safer.

Acoustic event detection Particularly important to the researchers in Oldenburg is the adaptability of the Hearable to individual customer requirements. In this way, functionalities could be combined with each other depending on the area of application. In the area of quality control, acoustic monitoring of machines and processes can also be integrated - for example, to document the clicking into place of mechanical connections. The fact that all functions can be used without a cloud connection means that they can be used even with the highest data protection and data security requirements. An integration into existing systems is also possible.

Potential future applications include monitoring vital data at the hazard workplace.



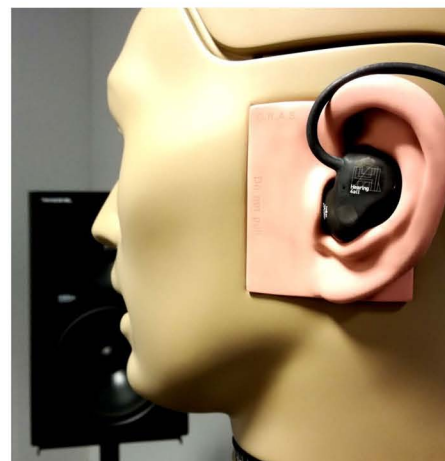
Dr. Jan Rennies-Hochmuth, Head of Personalized Hearing Systems at Fraunhofer IDMT.

The objective of the Division Hearing, Speech and Audio Technology HSA of the Fraunhofer Institute for Digital Media Technology IDMT is to transfer scientific findings related to hearing perception and man-machine interaction into technological applications. Its applied research priorities are the enhancement of sound quality and speech intelligibility, personalized audio reproduction, acoustic speech recognition and event detection with the help of artificial intelligence. A further focus is the use of mobile neurotechnologies, which facilitate the recording of brain activity and utilization of the resulting data outside the laboratory too.

Application fields include consumer electronics, transport, the automotive sector, industrial production, security, telecommunications and healthcare. - www.idmt.fraunhofer.de/hsa

A Hearable as an AI platform for intelligible communication, voice control and documentation, and acoustic quality control.

For this purpose, the researchers at Fraunhofer IDMT work with the "Transparent Earpiece", which was developed in the Hearing4all Cluster of Excellence together with the company InEar. - © Fraunhofer IDMT



Biotechnology

Stem cells from the bioreactor

Würzburg, Germany (03 November 2021) - With the aid of artificial stem cells, it will soon be possible to establish new treatments for previously incurable diseases such as Alzheimer's disease. At the Fraunhofer Project Centre for Stem Cell Process Engineering SPT, a process for the mass production of these so called induced pluripotent stem cells is being developed.

This process involves new materials, which ensure that industrial cell production will meet high quality standards. The process was unveiled to the public for the first time at the MEDICA trade fair in Düsseldorf, Germany, in November.

The cells of a growing embryo have a fascinating property. They are able to transform into any other cell type – heart muscle cells, nerve cells and many more. Experts refer to them as pluripotent stem cells. When the human body is fully developed, the cells lose their pluripotency.

Recently, however, it has become possible to artificially revert the somatic cells of an adult to their embryonic state. These "induced pluripotent stem cells" (iPS) are an important tool for biotechnologists. This means that somatic cells can be taken from adults with genetic diseases, reprogrammed into iPS cells and then differentiated into heart muscle or nerve cells, which can then be used to test new drugs.

Because the iPS cells contain the patient's genome, it's much easier to determine which treatments will be effective for that patient. In this respect, iPS cells have huge potential for personalized medicine. The problem is that thus far, it hasn't been possible to produce iPS cells and culture them in large quantities and to a high quality. There lacks a standardized production line and process for industrial manufacturing that meets regulatory requirements.

The new Fraunhofer Project Centre for Stem Cell Process Engineering SPT in Würzburg, which is jointly operated by the Fraunhofer Institute for Biomedical Engineering IBMT and the Fraunhofer Institute for Silicate Research ISC, is working on exactly that.

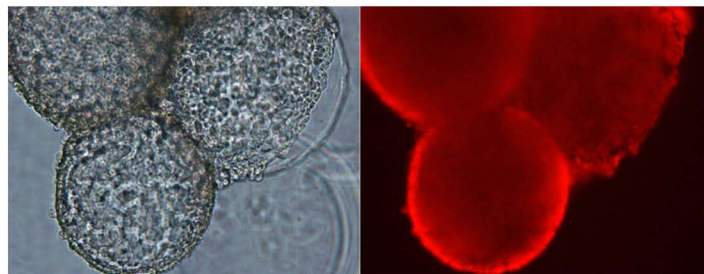
Combining materials expertise with biotechnology "In this project, we're combining our biotechnology expertise with the materials science know-how," say the MD and deputy MD of SPT, **Julia Neubauer** of the Fraunhofer IBMT and **Marco Metzger** of the Fraunhofer ISC. The Fraunhofer ISC is sharing its vast experience in the development of materials and surface coatings to help optimize the Fraunhofer IBMT biotechnologies for cell culture at the project centre.

Around the world, most scientists currently use hard, smooth surfaces for cell culture. On this type of surface, cells such as artificial heart muscle cells that actually contract can be grown. They do, however, behave differently to cells in a living body. For example, they hardly react to hormones such as adrenaline, which should make them beat faster. The SPT team is creating more realistic culture conditions so that the iPS cells will develop into more mature cells that behave naturally. Instead of hard surfaces, soft surface coatings made of hydrogels and 3D "biomimetic structures" made with 3D printers are used, for example. The surfaces are also modified with biochemical processes so that tissue-specific environment can be simulated.

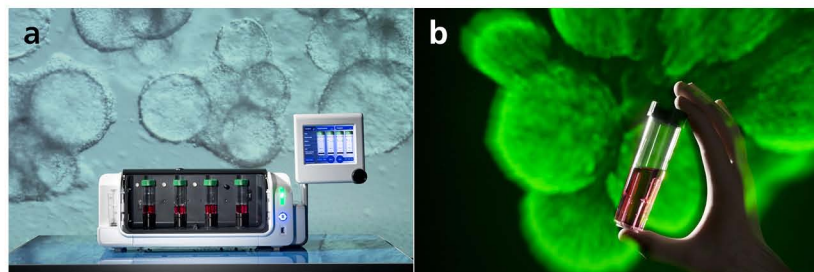
The key to iPS cell culture at SPT is the use of bioreactors, in which the cells grow while floating freely in a nutrient solution or adherent on microcarrier.

In these reactors, the cells are cultured on tiny hydrogel microspheres, for example. They can also grow in small 3D aggregates and interact with each other. These methods successfully mimic natural tissue growth. Another advantage of free-floating iPS cell culture is that the cells receive optimal nutrition and oxygen. In a group of cells on a 2D surface, those on the bottom layer are often less well nourished. The cell environment also doesn't provide natural conditions.

Cell biobank for research Over the past few years, the Fraunhofer IBMT has worked with pharmaceutical companies to establish the European Bank For Induced Pluripotent Stem Cells (EBISC) – a unique biobank for iPS cells. This biobank provides a variety of different iPS cell lines – for example from patients with Parkinson's disease or early-onset Alzheimer's disease. The iPS cells are available to academia, companies and research institutes. "With the help of these iPS cells, treatments for a range of diseases can be developed and tested," says Julia Neubauer. "The bank is thus of utmost importance for the future treatment of diseases that are currently incurable."



Scalable stem cell processing technology in suspension bioreactors (a). The different conditions are tested in separate cultivation tubes (b). © Fraunhofer IBMT/Bernd Müller



Adherent iPS cells on alginate microcarriers after successful cultivation (left: backlit phase contrast image, right: fluorescent image of pluripotency marker Oct-4, scale: 100 µm). © Fraunhofer IBMT

Filter solutions for high technology processes

Clean air at all times



The researchers at Fraunhofer IWS use a multi-adsorption system to investigate the adsorption behavior of competing gases to find suitable filter substances. © Jürgen Jeibmann/Fraunhofer IWS

Dresden, Germany (01 October 2021) - Metal processing with lasers and plasma releases many different pollutants into the ambient air. The Fraunhofer Institute for Material and Beam Technology IWS, together with partners, has developed a filter system that efficiently removes these substances from the air. The filter can be adapted to the various materials and substances released in each case. In the future, the technology will be used in other applications, such as additive manufacturing.

Microparticles and harmful gases as well as substances are released when metals are processed with lasers or plasma. Metalworking companies usually remove these substances from the workplace using extraction and ventilation systems. Where this is not possible, employees wear protective masks. As production becomes increasingly automated (using production robots for example), less attention is now often paid to emission protection, because people are not permanently present in the facility. "This is a problem, because employees do occasionally have to enter the facilities to carry out repairs and maintenance, and to monitor the quality of the products," says **Jens Friedrich**, group manager for Gas and Particle Filtration at the Fraunhofer IWS in Dresden. "In such cases, employees are not aware of quite how polluted the air in fact is."

One filter system for everything As part of a publicly funded project, Fraunhofer IWS in Dresden developed a filter system together with companies from Saxony which cleans the air in production rooms and effectively binds a variety of pollutants at the same time. The standard today are activated carbon filter systems, which for example retain volatile organic compounds



The researchers discuss the specifications of the new filter solution and select suitable drying agents on this basis. © Jürgen Jeibmann/Fraunhofer IWS

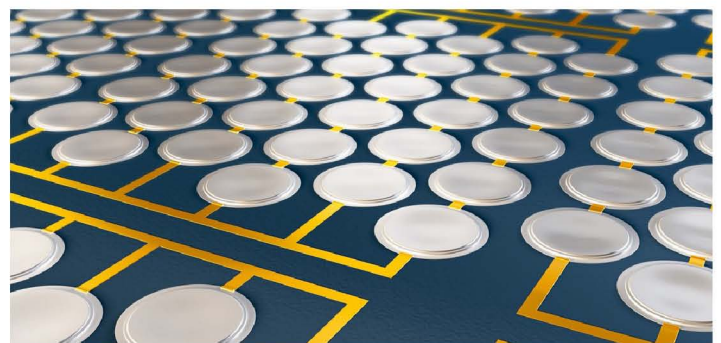
(VOCs). However, substances like formaldehyde, nitrogen oxides and problematic sulfur compounds are also often released in metalworking companies and workshops. Laser welding also releases microparticles of metal or welding material. No system has so far been available that removes all substances from the air equally well. As part of the MultiFUN project, the partners have developed such a flexible filter system for the first time. It consists of several exchangeable modules. Each filter level contains a filter medium specifically designed to remove particular substances from the ambient air. In addition to activated carbon, the filter system also uses zeolites and porous polymers, for example, but also so-called metal organic frameworks.

Testing many different substances To find the right filter substance, the Fraunhofer IWS researchers first tested a range of substances in the laboratory to see how well they adsorb the various air pollutants. The best candidates were then integrated into the filter system prototype, which was manufactured by the company ULT in Löbau. A distinguishing feature of this system compared with conventional filter systems is its sensor monitoring, which automatically detects when the filter medium is saturated with substances and needs to be replaced. The status is displayed by colored LEDs separately for each filter level and pollutant class. This means that only the filter level that is saturated needs to be replaced.

You are better off using filter systems As a result of increasing automation there is a rise in the number of factory rooms in which the air is not adequately cleaned, such as 3D production facilities. "This is bound to cause conflicts, because nothing ever works completely without people being involved," says Friedrich. "It is absolutely advisable to use filter systems to protect the health of employees over the long term – even if they only enter the automated areas occasionally." In additive manufacturing using 3D laser robots, significant quantities of microparticles are released. These are deposited and pollute the room as well as the workpieces. The particles can contaminate high-value products. They also represent an accident hazard, if people slip on the pellets accumulated on the floor.

Together with a number of companies, Fraunhofer IWS is currently working on the development of a system that is specifically designed to filter out pollutants and substances that are released during additive manufacturing. "Our institute has expertise in laser processing, in materials and in the development of entire systems," says Friedrich. "This makes us the right partner when it comes to the development of such filter solutions." He also believes there is a growing need for filter systems that remove various substances from the air in the production and recycling of batteries. This is particularly the case because metals such as nickel, manganese and cobalt are used there, which can form compounds that are hazardous to health even at very low doses.

The MultiFUN project was funded by the European Regional Development Fund (ERDF). Its partners include ULT AG from Löbau, SEMPA SYSTEMS GmbH from Dresden, textile manufacturer Norafin Industries GmbH from Mildenaу and Fraunhofer IWS.



The best adsorbents are then integrated into the filter system prototype, which was manufactured by the company ULT from Löbau. A distinguishing feature of this system compared with conventional filter systems is its sensor monitoring, which automatically detects when the filter medium is saturated with substances and needs to be replaced. © Jürgen Jeibmann/ Fraunhofer IWS

MUNICH 2.0 - 21002



ERGONOMIC DESIGN APPROVED BY A PODIATRIST
FREE FOOT ROOM

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

BREMEN 2.0 - 21001



ERGONOMIC DESIGN APPROVED BY A PODIATRIST
FREE FOOT ROOM

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

ALPINE (LIME) - 21019



ERGONOMIC DESIGN APPROVED BY A PODIATRIST

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

AMATHOLE (LIME) - 21018



ERGONOMIC DESIGN APPROVED BY A PODIATRIST

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

ALPINE (SILVER) - 21019



ERGONOMIC DESIGN APPROVED BY A PODIATRIST

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

AMATHOLE (SILVER) - 21018



ERGONOMIC DESIGN APPROVED BY A PODIATRIST

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

HIKER 2.0 - 21013



ERGONOMIC DESIGN APPROVED BY A PODIATRIST

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 3-13

EN/ISO 20345 

TAHOE - 21021



ERGONOMIC DESIGN APPROVED BY A PODIATRIST
FREE FOOT ROOM

SOLE: PU/PU
TOE CAP: STEEL
SIZES: 5-13

EN/ISO 20345 

REFLECTIVE WORK JACKET OJ12930



Da Gama
DA GAMA TEXTILES
flame retardant
FLAME RETARDANT
ACID RESISTANT

SIZE: 32-60
FABRIC: D59 100% COTTON FLAME RETARDANT AND ACID RESISTANT
COLOUR:

STK 

REFLECTIVE WORK TROUSERS OT12938



Da Gama
DA GAMA TEXTILES
flame retardant
FLAME RETARDANT
ACID RESISTANT

SIZE: 28-56
FABRIC: D59 100% COTTON FLAME RETARDANT AND ACID RESISTANT
COLOUR:

STK 

ARC LIME SILVER LIME WORK JACKET - WRJK10021



INHERENT FR

SIZE: 32-60
FABRIC: LENZING FR, ARAMID, ANTI-STATIC BLEND
ATPV: 13 CAL/CM²
COLOUR:

STK MTO MTO 

ARC LIME SILVER LIME WORK TROUSER - WRTR10021



INHERENT FR

SIZE: 28-56
FABRIC: LENZING FR, ARAMID, ANTI-STATIC BLEND
ATPV: 13 CAL/CM²
COLOUR:

STK MTO MTO 

ARC STANDARD CHAMBRAY SHIRT - WTSH40021



INHERENT FR

SIZE: 32-60
FABRIC: LENZING FR, ARAMID, ANTI-STATIC BLEND
ATPV: 13 CAL/CM²
COLOUR:

STK MTO MTO 

ARC STANDARD WORK TROUSER - WTTR10021




INHERENT FR


SIZE: 28-56
FABRIC: LENZING FR, ARAMID, ANTI-STATIC BLEND
ATPV: 13 CAL/CM²
COLOUR:

STK MTO MTO 


EXCAVO - HARN30000




Underground Mining Harness

SABS APPROVED 

AGILIS - HARN40000



Multi-purpose Harness

SABS APPROVED CE 

GORDIAN - HARN50000



Rope Access & Rescue Harness



ARC HARNESS - HARN70000



Fire Retardant & ARC Flash Rated Harness



SPARK HARNESS - HARN60000



Welding Harness



SPARK LANYARD - LANY05220



Fire Retardant & ARC Flash Rated Lanyard



DOUBLE LEG, SHOCK ABSORBING LANYARD - LANY01220



45mm UV-resistant webbing



DOUBLE LEG, ELASTICATED, SHOCK ABSORBING LANYARD - LANY01620



25mm UV-resistant webbing



Sisi SAFETY WEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



VENICE 51002
Female safety shoe

Colour Available: Black
Size Available: 3-8
Full grain leather | Steel toe cap | Single Density PU | Tested to comply with SANS/ISO 20345 specifications | NRCS/9002/287766/0110

Visit www.sisi.co.za for more

Sisi SAFETY WEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



JENNIFER 55005
Female safety shoe

Colour Available: Black with pink trimmings
Size Available: 3-8
Full grain leather | Steel toe cap | Dual Density PU/PU | Available with APT | Tested to comply with SANS/ISO 20345 specifications | NRCS/9002/287766/0153

Visit www.sisi.co.za for more

Sisi SAFETY WEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



SYDNEY 51005
Female chelsea boot

Colour Available: Black & Brown
Size Available: 3-8
Full grain leather | Steel toe cap | Single Density PU | Elasticated side gussets for ease of entering and exiting the boot | Tested to comply with SANS/ISO 20345 specifications | NRCS/9002/287766/0135

Visit www.sisi.co.za for more

Sisi SAFETY WEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



YVONNE 55013
Female chukka boot

Colour Available: Black
Size Available: 3-8
Steel toe cap | Dual Density PU/PU | Tested to comply with EN/ISO 20345 specifications

Visit www.sisi.co.za for more

Sisi SAFETY WEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



REESE 55006
Female safety boot

Colour Available: Black with pink trimmings
Size Available: 3-8
Full grain leather | Steel toe cap | Dual Density PU/PU | Available with APT | Tested to comply with SANS/ISO 20345 specifications | NRCS/9002/287766/0153

Visit www.sisi.co.za for more

Sisi WORKWEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



REFLECTIVE WORK JACKET
D59 Acid and Flame - OJ13222

Size: 32-56
Weight: 220gsm
Colours: Navy Blue



Visit www.sisi.co.za for more

Sisi WORKWEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



REFLECTIVE WORK TROUSER
D59 Acid and Flame - OT13221

Size: 28-56
Weight: 220gsm
Colours: Navy Blue



Visit www.sisi.co.za for more

Sisi WORKWEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



TRI-REFLECT MATERNITY JACKET
J54 100% Cotton - OJ13079

Size: 32-56
Weight: 220gsm
Colours: Navy Blue



Visit www.sisi.co.za for more

Sisi WORKWEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



TRI-REFLECT MATERNITY TROUSER
J54 100% Cotton - OT13080

Size: 28-56
Weight: 220gsm
Colours: Navy Blue



Visit www.sisi.co.za for more

Sisi WORKWEAR SAFETY WEAR THAT IS SHAPED FOR WOMEN WHO SHAP THE WORLD



DURAFIT REFLECTIVE BOILER SUIT
J54 100% Cotton - OBI2941

Size: 28-56
Weight: 220gsm
Colours: Navy Blue & Unbleached



Visit www.sisi.co.za for more

LEMAITRE
SAFETY FOOTWEAR

BEN



Ben STC
Style no: 8003
Colour: Black/
Red or Black/
Grey

FEATURES:

SRC rated slip resistance offering maximum slip resistance with square cleat edges and flow lines • No metal or hard plastic in the upper construction • Footology Elastopan Climate Control insole

LEMAITRE
SAFETY FOOTWEAR

CONCORDE BOOT
S3 RATED BOOT



Concorde Boot STC
Style no: 8021
Colour: Brown

FEATURES AND BENEFITS:

Parabolic sole unit for all-day comfort and protection • Treated for resistance against water dust and stains with water-resistant treated seams • Standard with an anti-penetration midsole for protection against sharp objects penetrating the shoe • Footology Elastopan Climate Control Insole

LEMAITRE
SAFETY FOOTWEAR

DODGE



Dodge STC
Style no: 4008
Colour: Brown

FEATURES AND BENEFITS:

PU/Rubber sole for protection in hazardous working conditions • TPU heel support system for added support • Footology Elastopan Climate Control Insole

LEMAITRE
SAFETY FOOTWEAR

FALCON BOOT



Falcon Boot STC
Style no: 8027
Colour: Black
Falcon SMS
Style no: 8063

FEATURES AND BENEFITS:

Raptor sole with TPU inserts for grip, support and protection • Footology Elastopan Climate Control Insole • Stability and torsion control on uneven ground

LEMAITRE
SAFETY FOOTWEAR

OSPREY HIKER



Steel Toe Cap
Style no: 8038
Soft Toe
Style no: 8238
Colour: Black or Tan

FEATURES AND BENEFITS:

Raptor sole unit provides an extra wide fit with deep cleats providing the ultimate in torsion control • Full grain leather • Leather scuff PU coating on back counter and vamp • Footology Elastopan Climate Control Insole

LEMAITRE
SAFETY FOOTWEAR

URBAN S3 RATED BOOT



Urban STC
Style no: 4009
Colour: Black

FEATURES:

PU/Rubber sole for protection in hazardous working conditions • Water resistant treated seams • Fire retardant laces • Side & Rear reflective strips • TPU bump cap • Footology insole Climate Control • Anti-penetration (APT) midsole for protection against sharp objects penetrating the shoe

LEMAITRE
SAFETY FOOTWEAR

URBAN
S3 RATED




- S2 treated leather
- Bellevue Tongue
- Flame retardant laces
- TPU bump cap
- Side & Rear reflective strips
- APT midsole
- PU/Rubber sole
- Footology Climate Control Insole

ULTIMATE IN RESISTANCE, PROTECTION AND COMFORT PU/RUBBER

Duralight Men's 2
F1030

Features:

Light in weight for enhanced comfort and reduced fatigue • Optimum flexibility and abrasion resistance • Protection against blood, fats, oils and chemicals • Nylon liner allows for easy cleaning and quick drying resulting in maximum hygiene



Wayne
Nitrile PVC Upper
Nitrile PVC Sole
Sizes: RSA 5 - 12

Duralight Ladies 2
F1681

Features:

Light in weight for enhanced comfort and reduced fatigue • Optimum flexibility and abrasion resistance • Protection against blood, fats, oils and chemicals • Nylon liner allows for easy cleaning and quick drying resulting in maximum hygiene



Wayne
Nitrile PVC Upper
Nitrile PVC Sole
Sizes: RSA 5 - 12

Polyurethane Boots
P2010

Features:

Lighter in weight to enable enhanced comfort and reduce fatigue • Enhanced thermal properties • 2 to 3 times more durable than PVC • Highest possible SRC slip resistance rating • Boots are fitted with a Polyurethane footbed insole for enhanced comfort




Wayne
Polyurethane (PU) Sole
Polyurethane (PU) Upper
Sizes: RSA 4 - 14

Men's Chelsea Gripper
F1505

Features:

Recycled PVC uppers for optimum flexibility and abrasion resistance • Recycled PVC sole for durability • The cleated sole design provides maximum slip resistance • Elastic gusset • Nylon liner allows for easy cleaning and quick drying resulting in maximum hygiene




Wayne
PVC Upper
Nitrile PVC Sole
Sizes: RSA 5 - 14

Men's Chelsea HD
F1506

Features:

PVC uppers for optimum flexibility and abrasion resistance • Nitrile PVC sole for durability and protection against fats, oils and chemicals • SRA level slip resistance and maximum soil release • Elastic gusset • Nylon liner allows for easy cleaning and quick drying resulting in maximum hygiene




Wayne
PVC Upper
Nitrile PVC Sole
Sizes: RSA 3 - 13

Egoli 2 - Metaguard
F1392: Heavy Duty Improved Metatarsal Protection

Features:

PVC uppers for optimum flexibility and abrasion resistance • Nitrile PVC sole for durability and protection against fats, oils and chemicals • Nylon liner allows for easy cleaning and quick drying for maximum hygiene




Wayne
PVC Upper
Nitrile PVC Sole
Sizes: RSA 4 - 14

Egoli 2 - Knee Length Boots
F1360

Features:

PVC uppers for optimum flexibility and abrasion resistance • Nitrile PVC sole for durability and protection against fats, oils and chemicals • SRA level of slip resistance • Nylon liner allows for easy cleaning and quick drying resulting in maximum hygiene




Wayne
PVC Upper
Nitrile PVC Sole
Sizes: RSA 5 - 14

PVC Chest Waders

Features:

PVC uppers for optimum flexibility and abrasion resistance • Nitrile PVC sole for durability and protection against fats, oils and chemicals • SRA level of slip resistance



Wayne
PVC Heavy Duty Egoli
Sizes: RSA 3 - 13
Recycled Duralight PVC
Sizes: RSA 5 - 12

HOBO JS03 SHOE
BLACK ECONO SAFETY SHOE

Grey/Black Dual Density PU/PU sole
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, petrol and diesel resistant sole
 Standard ISO 20345:2011

HOBO JS03 BOOT
BLACK ECONO SAFETY BOOT

Lightweight, anti-static, slip and abrasion resistant sole
 Oil, petrol and diesel resistant sole
 Standard ISO 20345:2011

PARSON JS01
BLACK SAFETY BOOT

Extended PU Toe Bump for added protection and scuff resistance
 Anti-static, slip and abrasion resistant sole
 Penetration resistant Steel midsole
 Standard ISO 20345:2014

PARSON JS01 S1
BLACK SUPERFLEX SAFETY BOOT

Extended PU Toe Bump for added protection and scuff resistance
 Anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 110° heat resistant outer sole
 Standard ISO 20345:2014

LYNX JS02
BLACK SAFETY SHOE

Extended PU Toe Bump for added protection and scuff resistance
 Anti-static, slip and abrasion resistant sole
 Penetration resistant Steel midsole
 Standard ISO 20345:2014

ASSASSIN JS06
BROWN CHELSEA SLIP ON BOOT

Extended PU Toe Bump Cap
 Sports Mesh Cushioned Lining
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2014

ASSASSIN JS06 NSTC
BROWN CHELSEA SLIP ON BOOT NON-STEEL TOE CAP

Sports Mesh Cushioned Lining
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 ISO 20347:2104 (O2 → Occupational Footwear)

BAGHEERA JS07
BLACK CHELSEA SLIP ON BOOT

Extended PU toe bump cap
 Sports mesh cushioned lining
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2011

GOLIATH JS04
BROWN HIKER BOOT

Extended PU toe bump cap
 Sports mesh cushioned lining
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2014

GOLIATH JS04
BLACK HIKER BOOT

Extended PU toe bump cap
 Sports mesh cushioned lining
 Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2014

TARANTULA JS05 BLACK
BLACK HIGH ANKLE WEATHERPROOF BOOT

Non-conductive, slip and abrasion resistant sole
 300° heat resistant outer sole
 Penetration resistant Kevlar midsole
 Standard ISO 20345:2014

TARANTULA JS05 TAN
TAN HIGH ANKLE WEATHERPROOF BOOT

Non-conductive, slip and abrasion resistant sole
 300° heat resistant outer sole
 Penetration resistant Kevlar midsole
 Standard ISO 20345:2014

SHAMROCK MR01
METATARSAL BOOT

Non-conductive, Non-marking, slip and abrasion resistant outer sole
 Outer sole heat resistant to 300°
 Extended heavy duty toe bump cap, for scuff resistance and spatter protection
 Standard ISO 20345:2014

SCARLET LS01
BLACK LADIES SAFETY BOOT

Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2014

CHARLOTTE LS02
BLACK LADIES SAFETY SHOE

Lightweight, anti-static, slip and abrasion resistant sole
 Oil, acid, petrol and diesel resistant sole
 Standard ISO 20345:2014

ALL WHEEL DRIVE AS01
BLACK SAFETY SNEAKER

Lightweight, anti-static, slip and abrasion resistant sole
 Heat resistant to 90°
 Standard ISO 20345:2014

KALIBER GOBI
SAFETY FOOTWEAR


- Available in desert and black
- Leather upper
- Shock absorbent, slip & oil resistant
- Heel stabiliser
- Steel shank for stability
- EVA midsole
- Padded collar for added comfort
- Zip added for ease of fitting



STYLE NO. SFT007-2011 (DESERT)
SFT007-2010 (BLACK) | SIZES 5 - 13

KALIBER HAWK
SAFETY FOOTWEAR

- Full-grain leather
- Steel toe cap – 200 Joules
- Shock absorbent dual-density polyurethane sole unit
- Oil resistant outsole
- Anti-slip outsole & Anti-Static
- Comfort innersole
- Reflective safety tab on rear



STYLE NO. SFT007-1212 | SIZES 3 - 13

KALIBER CONDOR
SAFETY FOOTWEAR


- Genuine buffalo leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Steel midsole - prevent sharp penetration
- Oil resistant outsole
- Padded collar for comfort
- Reflective strip for visibility
- Anti-slip
- Anti-Static



STYLE NO. SFT007-1002 | SIZES 3 - 13
NRCS/9002/28804/0017, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER VOLCANO
SAFETY FOOTWEAR

- Genuine leather Barton print upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Rubber outsole heat resistant up to 300°C
- Steel midsole - prevent sharp penetration
- Outsole has Hot and cold insulation
- Water resistant
- Oil resistant
- Anti-slip
- Anti-Static



STYLE NO. SFT007-1105 | SIZES 3 - 13
NRCS/9002/28804/0157, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER CHELSEA
SAFETY FOOTWEAR

- Available in black and brown
- Smooth genuine leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Steel midsole - prevent sharp penetration
- Oil resistant outsole
- Comfort innersole
- Anti-slip
- Anti-Static
- Light weight



STYLE NO. SFT007-1008 (BLACK)
SFT007-1006 (BROWN) | SIZES 3 - 13
NRCS/9002/28804/0095, EN ISO 20345:2011, Fully Certified & Approved

KALIBER VELOCITY
SAFETY FOOTWEAR

- Breathable light weight mesh upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Oil resistant outsole
- Anti-slip
- Anti-Static



STYLE NO. SFT007-1104 | SIZES 3 - 13
NRCS/9002/28804/0131, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER JACKAL
SAFETY FOOTWEAR

- Genuine buffalo leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Anti-slip outsole
- Padded collar for comfort
- Oil resistant outsole



STYLE NO. SFT007-1007 | SIZES 3 - 13
NRCS/9002/28804/0054, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER JACKAL LO
SAFETY FOOTWEAR

- Genuine buffalo leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Anti-slip outsole
- Padded collar for comfort
- Oil resistant outsole



STYLE NO. SFT007-1009 | SIZES 2 - 13
NRCS/9002/28804/0029, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER REACTION
SAFETY FOOTWEAR

- Smooth genuine leather upper
- Steel toe cap – 200 Joules
- Comfort innersole
- Shock absorbent dual density polyurethane sole unit
- Steel midsole - prevent sharp penetration
- Padded collar for comfort
- Oil resistant
- Anti-slip outsole
- Light weight
- Breathable mesh on upper



STYLE NO. SFT007-1004 | SIZES 3 - 13
NRCS/9002/28804/0100, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER RAPTOR
SAFETY FOOTWEAR

- Genuine buffalo leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Steel midsole to prevent sharp item penetration
- Oil resistant outsole
- Anti-slip
- Anti-Static
- Padded collar
- Reflective strip
- Comfort innersole



STYLE NO. SFT007-1001 | SIZES 2 - 16
NRCS/9002/28804/0111, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER RAPTOR EX
SAFETY FOOTWEAR


- Smooth genuine leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Steel midsole - prevent sharp penetration
- Oil resistant outsole
- Anti-slip
- Anti-Static
- Padded collar
- Reflective strip
- Comfort innersole



STYLE NO. SFT007-1001 | SIZES 3 - 13
NRCS/9002/28804/0011, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER DUTY
SAFETY FOOTWEAR


- Synthetic upper
- Injection moulded polyurethane sole unit
- Light weight comfortable step out shoe



STYLE NO. SFT007-1102 | SIZES 5 - 11

KALIBER SENTRY
SAFETY FOOTWEAR

- Exceptional value
- Polyester upper
- Shock absorbent polyurethane sole unit



STYLE NO. SFT007-1012 | SIZES 3 - 13

KALIBER KRONOS
SAFETY FOOTWEAR


- Genuine Buffalo leather upper
- Steel toe cap – 200 Joules
- Shock absorbent dual density polyurethane sole unit
- Oil resistant outsole
- Anti-slip outsole
- Padded collar for comfort
- Light weight



STYLE NO. SFT007-1011 | SIZES 3 - 13
NRCS/9002/28804/0126, EN ISO 20345:2011,
Fully Certified & Approved

KALIBER GUARDIAN
SAFETY FOOTWEAR

- Available in black and brown
- Full grain genuine leather upper
- Dual density polyurethane sole unit
- Padded collar for comfort
- Light weight
- Comfort innersole



STYLE NO. SFT007-1201 | SIZES 3 - 13

KALIBER PATRIOT
SAFETY FOOTWEAR

- Available in black and brown
- Genuine leather upper
- Zip added for ease of fitting
- Dual density polyurethane sole unit
- Padded collar for comfort
- Light weight



STYLE NO. SFT007-1113 (BLACK)
SFT007-1103 (BROWN) | SIZES 3 - 13

FX2 SAFETY BOOT

FX2-S1P | Sizes: 2-14
ISO 20345, SABS & NRCS approved

The FX2 is a general purpose work boot that features a 200J steel toe cap and steel midsole for anti-penetration ensuring optimal protection in a variety of work environments.



REBEL
SAFETY GEAR

FX2 METATARSAL BOOT

FX2-MT-S1P | Sizes: 3-13
ISO 20345, SABS & NRCS approved

The FX2 Metatarsal Boot is a general purpose work boot that features a 200J steel toe cap, a fixed metatarsal guard as well as a steel midsole for anti-penetration properties, ensuring optimal protection in a variety of work environments.



REBEL
SAFETY GEAR

FX2 CHELSEA BOOT

FX2-CB-S1P | Sizes: 3-13
ISO 20345 & SABS approved

The FX2 Chelsea boot is a general purpose work boot that includes a 200J steel toe cap and steel midsole for anti-penetration protection. The laceless design ensures efficient slip-on and off functionality as well as a stylish look.



REBEL
SAFETY GEAR

FX2 CHELSEA BOOT

FX2-CB-BR | Sizes: 3-13
ISO 20345 & SABS approved

The FX2 Chelsea boot is a general purpose work boot that includes a 200J steel toe cap and steel midsole for anti-penetration protection. The laceless design ensures efficient slip-on and off functionality as well as a stylish look.



REBEL
SAFETY GEAR

CHUKKA BOOT

RE811 | Sizes: 2-16
ISO 20345, SABS & NRCS approved

The Chukka is Africa's iconic work boot. A traditional boot that incorporates the essential combination of safety features in a stylish lace-up design. The Chukka boot includes a 200J steel toe cap and protective toe bumper for added scuff protection. The Hi-Viz reflective strips provide added visibility.



REBEL
SAFETY GEAR

CHUKKA BOOT

RE811-BR | Sizes: 2-15
ISO 20345, SABS & NRCS approved

The Chukka is Africa's iconic work boot. A traditional boot that incorporates the essential combination of safety features in a stylish lace-up design. The Chukka boot includes a 200J steel toe cap and protective toe bumper for added scuff protection. The Hi-Viz reflective strips provide added visibility.



REBEL
SAFETY GEAR

HIKER HI

RE304-BK | Sizes: 3-13
ISO 20345, SABS & NRCS approved

The Hiker HI is a superior work boot with a range of premium features including a high-quality, full grain, waxy leather upper, 200J steel toe cap, and toe bumper for added scuff protection. The Hiker HI provides excellent safety, comfort and style in a traditional design available in black or brown.



REBEL
SAFETY GEAR

HIKER HI

RE304 | Sizes: 2-14
ISO 20345, SABS & NRCS approved

The Hiker HI is a superior work boot with a range of premium features including a high-quality, full grain, waxy leather upper, 200J steel toe cap, and toe bumper for added scuff protection. The Hiker HI provides excellent safety, comfort and style in a traditional design available in black or brown.



REBEL
SAFETY GEAR

CHROME LEATHER YELLOW CANDY GLOVES

GL-CHRCAWRSU | Sizes: 10 (large)

The Chrome Leather Yellow Candy Superior glove is a wrist length general handling glove made from chrome split leather. The glove features thicker leather for inner fingers, resulting in extra durability as well as a soft fleece inner lining for extra comfort on palm and fingers.



REBEL
SAFETY GEAR

YELLOW LINED WELDERS GLOVES

GL-WELYEWSU | Sizes: 10 (large)

The Yellow Lined Welders Superior Glove is a wrist length chrome black/yellow leather glove with a reinforced palm and thumb area. The glove features black leather piping sewn into the seam for added durability, fleece on the inside of the palm as well as denim lining on the inside of the collar.



REBEL
SAFETY GEAR

YELLOW LINED WELDERS GLOVES – ELBOW LENGTH

GL-WELYEELSU | Sizes: 10 (large)

The Yellow Lined Welders Superior Glove is an elbow length chrome black/yellow leather glove with a reinforced palm and thumb area. The glove features black leather piping sewn into the seam for added durability, fleece on the inside of the palm as well as denim lining on the inside of the collar.



REBEL
SAFETY GEAR

RED PU COATED GENERAL HANDLING GLOVES

GL-PUREWR | Sizes: M/L/XL

The Red PU Coated is a wrist length general handling and small component handling glove fit for the food industry. The Gloves have a smooth PU coating to ensure excellent grip in wet and dry conditions and has a smooth coated finish.



REBEL
SAFETY GEAR

TRU TOUCH HI VIZ SANDY NITRILE GLOVES

GL-NITHISAWR | Sizes: M/L/XL

The Tru Touch Sandy Nitrile Glove is a general and small component handling glove fit for the food industry. The rough nitrile coating ensures grip in both wet and dry conditions and is fit for use in greasy and oily work environments.



REBEL
SAFETY GEAR

WONDER GRIP® OPTY™

OP-600L | Sizes: 8/M, 9/L, 10/XL

This glove protects against chemical risks in dry, oily or humid environments thanks to its triple PVC coating.



REBEL
SAFETY GEAR

WONDER GRIP® AQUA

RE420-BR | Sizes: 8/M, 9/L, 10/XL, 11/XXL

This glove provides excellent dexterity and prevents fatigue in a wide variety of uses in wet environments thanks to its double latex coating.



REBEL
SAFETY GEAR

BASIC FALL ARREST HARNESS

HS-HARFA-01

Basic fall arrest harness with double lanyard and scaffold hooks. Full body harness, with adjustable leg straps, permanently connected to lanyard. Full EN Compliance, suitable for users up to 140kgs.



REBEL
SAFETY GEAR

REBEL
SAFETY GEAR

TECH GEAR ACID FLAME TROUSERS

CODE VW-TRREAB | SIZES 28 - 48



The REBEL Tech Gear Acid Flame Trousers are made from high quality, durable cotton canvas in a range of sizes from 28 to 48 with a modern and contoured fit. These acid flame trousers are flame retardant and acid resistant, making them ideal for applications like welding and acid environments.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

AIRMAXX DISPOSABLE FFP1 DUST MASK

CODE RE-DISDU-FFP1



The Airmaxx FFP1 disposable dust mask has an aluminium strip glue bonded nose clip and a 3 layer non-woven polyester respirator. The Airmaxx has a low profile and adjustable nose clip to ensure a better fit. The latex free head straps are pre-stretched and are glue bonded to the mask. The Airmaxx will protect against low levels of dust as well as solid and liquid aerosols (concentrations of up to 4x APF or OEL).

www.rebelsafetygear.com

REBEL
SAFETY GEAR

AIRMAXX DISPOSABLE FFP2 DUST MASK

CODE RE-DISDU-FFP2



The Airmaxx FFP2 disposable dust mask has an aluminium strip glue bonded nose clip and a 4 layer non-woven polyester respirator. The Airmaxx has a low profile and adjustable nose clip to ensure a better fit. The latex free head straps are pre-stretched and are glue bonded to the mask. The Airmaxx will protect against low levels of dust as well as solid and liquid aerosols (concentrations of up to 12x OEL and 4x APF). Sold in packs of 20.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

AIRMAXX DISPOSABLE FFP2V DUST MASK WITH VALVE

CODE RE-DISDU-FFP2V



The Airmaxx FFP2V disposable dust mask has an aluminium strip glue bonded nose clip, 4 layer non-woven polyester respirator and a rubber one way exhalation valve. The Airmaxx has a low profile and adjustable nose clip to ensure a better fit. The latex free head straps are pre-stretched and are glue bonded to the mask. The Airmaxx will protect against moderate levels of dust as well as solid and liquid aerosols (concentrations of up to 12x OEL and 4x APF). Sold in packs of 12.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

RUBBERISED HI VIZ REFLECTIVE LIME RAIN SUIT

CODE RA-S-RUHVRL | SIZES S - 4XL



The Hi-Viz Lime Rubberised Rain Suit is a high-quality 100% waterproof polyester/PVC rain suit with a nylon mesh lining, fully taped seams and a 110gsm inner fill. The rain suit features 50mm wide silver reflective strips sewn into the jacket and trousers, a PVC drawstring bag is included for easy storage.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

RUBBERISED HI VIZ REFLECTIVE ORANGE RAIN SUIT

CODE RA-S-RUHVRO | SIZES S - 4XL



The Hi-Viz Orange Rubberised Rain Suit is a high-quality 100% waterproof polyester/PVC rain suit with a nylon mesh lining, fully taped seams and a 110gsm inner fill. The rain suit features 50mm wide silver reflective strips sewn into the jacket and trousers, a PVC drawstring bag is included for easy storage.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

RUBBERISED HI VIZ REFLECTIVE NAVY RAIN SUIT

CODE RA-S-SURNA | SIZES S - 4XL



The Hi-Viz Navy Rubberised Rain Suit is a high-quality 100% waterproof polyester/PVC rain suit with a nylon mesh lining, fully taped seams and a 110gsm inner fill. The rain suit features 50mm wide silver reflective strips sewn into the jacket and trousers, a PVC drawstring bag is included for easy storage.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

RUBBERISED NAVY RAIN SUIT

CODE RA-S-RUNA | SIZES S - 4XL



The Rubberised Rain Suit is a high-quality 100% waterproof polyester/PVC rain suit with a nylon mesh lining, 110gsm inner filling, fully taped seams, a polyester/PVC drawstring bag is included for easy storage purposes.

www.rebelsafetygear.com

REBEL
SAFETY GEAR

RUBBERISED YELLOW RAIN SUIT

CODE RA-S-RUYE | SIZES S - 4XL



The Rubberised Rain Suit is a high-quality 100% waterproof polyester/PVC rain suit with a nylon mesh lining, 110gsm inner filling, fully taped seams, a polyester/PVC drawstring bag is included for easy storage purposes.

www.rebelsafetygear.com