

NEWS FROM THE PIPELINE

AUGUST 2021

The official newsletter of the Southern African Plastic Pipe Manufacturers Association (SAPPMA)

FROM THE CEO'S DESK

SAPPMA has come a long way since its inception and our footprint in the market is firmly established. We have maintained our focus essentially in five areas, namely Product Standards, Product Quality, Technical Information, Marketing and Training. In each case, however, we have intensified our efforts improve effectiveness and efficiency. This is an open-ended mission and we will continue accordingly.

In order to have a clearer overview of our activities, I have arranged it in the form of the matrix (see page 2) and trust you will find it of interest.

All our work is directed at improving and maintaining the long-term health of the plastics pipe industry and we do this without the distraction of working for profit, being a registered non-profit company. The benefit accrues to the whole market, or more accurately, every citizen in the country. Our members, therefore, deserve a very big thank you for their financial support.

We live and work in a very challenging environment at present and I trust your hard work, persistence and innovation will carry you through. Our prayers go with you.



Jan Venter

CEO: SAPPMA

Email: Jan@sappma.co.za

IN THIS MONTH'S ISSUE:





- Explaining SAPPMA's activities and areas of focus
- SAPPMA forms three specialist standing committees
- merSETA releases findings of research report into improving the competitiveness of the SA plastic pipe manufacturing industry
- Reminder of exciting SAPPMA photography competition - stand a chance to win you share of R25,000 in cash prizes!
- Unannounced factory audits now the norm for SAPPMA members
- Sizabantu completes major irrigation project in Angola

AND MUCH MORE!

Disclaimer:

The opinions expressed by individuals in this newsletter are strictly the view of such persons and do not necessarily represent those held by SAPPMA

SAPPMA'S ACTIVITIES EXPLAINED

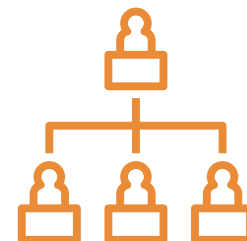
FOCUS	WHAT	HOW	WHO
Product Standards 	<ul style="list-style-type: none"> • International, national, internal • Awareness, acceptance, application • Amendments • Availability, access 	<ul style="list-style-type: none"> • Maintain contact with SANS, ISO, DIN, etc. • Standing committees • SAPPMA website • Meetings, seminars, audits 	<ul style="list-style-type: none"> • Manufacturers – pipes, fittings • Fabricators, installers • Certification authorities & test labs • Design engineers, contractors, users
Quality 	<ul style="list-style-type: none"> • Conformance & consistence • Best practices • Continuous improvement • Long-term accountability 	<ul style="list-style-type: none"> • Monitoring • Audits, grading, support • Random tests • Code of conduct 	<ul style="list-style-type: none"> • Manufacturers - pipes and fittings • Fabricators, installers • Certification authorities & test labs • Market
Technical information 	<ul style="list-style-type: none"> • Raw materials • System & product design • Installation • Operation & maintenance 	<ul style="list-style-type: none"> • Seminars & workshops • Tech literature • Consultations • Newsletters 	<ul style="list-style-type: none"> • All members • Design engineers • Contractors • Customers
Marketing 	<ul style="list-style-type: none"> • SAPPMA the 'go-to organisation' • Benefits of plastic pipe • Accredited members • Data, stats 	<ul style="list-style-type: none"> • Newsletters • Media releases • Website • Seminars & workshops 	<ul style="list-style-type: none"> • Whole value chain
Training 	<ul style="list-style-type: none"> • Functional, on-the-job • Knowledge, skills 	<ul style="list-style-type: none"> • Plastics SA 	<ul style="list-style-type: none"> • Technicians, operators



“ When you are able to maintain your own **HIGHEST STANDARDS** regardless of what others may do, you are **DESTINED FOR GREATNESS** ”

Napoleon Hill

SAPPMA FORMS THREE NEW SPECIALIST STANDING COMMITTEES



SAPPMA has recently announced the forming of three new standing committees within the organisation. Each of these committees have a specific area of focus that relates to the plastic pipe industry and are headed up by leaders who have many years of first-hand experience of the issues being faced on a daily basis.

“ SAPPMA is privileged to count individuals who are world-class experts in their respective fields among our members. It, therefore, made sense for us to give these professionals the freedom and authority to head up specialist working committees that focus specifically on issues that directly impact the manufacturing and use of HDPE pipes, PVC pipes, and the installation and fabrication of these pipes.

Through forming these new SAPPMA standing committees, we are able to better handle specific technical matters (such as standards, testing, application, etc.) and to arrive at sound practical resolutions based on research, knowledge, and discussion. The underlying principle is making progress in terms of the understanding, application, and monitoring of standards, while at the same time ensuring resolutions remain practical, understandable, and economical,” explains Jan Venter, Chief Executive Officer of SAPPMA.

Small teams of experienced individuals make up the standing committees who meet in their own time and aim to arrive at resolutions within a reasonable time period. Apart from being in regular contact and consulting with the SAPPMA management, they are expected to report back on their activities at the combined quarterly member meetings where their resolutions are heard before they become part of SAPPMA’s standards, rules, and policies.

HDPE committee



Above:
George Diliyannis

George Diliyannis, Technical Service Leader at Safripol (Pty) Ltd is responsible for heading up the HDPE committee, supported by Lesley Geyser, QC Manager and Production Planner at The Rare Group. Current areas of focus for this working group include addressing issues relating to the mixing and contamination of polyethylene, updating SAPPMA’s MFR document, and addressing queries that relate to specific standards, i.e. SANS 21138 and ISO 4427:2019.

PVC committee



Renier Snyman, Technical Manager at Sun Ace SA (photograph left), chairs the PVC committee with the support of Tanya van Rensburg, Production Co-Ordinator of Eurocelt.

Issues that are currently being addressed by this working group include the SANS 967 (strap-on saddles), SANS 966-2 (HSIT alternatives), SANS 1601 (sockets and seals), and queries regarding pipe lengths.

IFPA (Installation and Fabrication Plastics Pipe Association)

Renier Pieterse, Director at Barona Pipelines and Fittings is responsible for heading up the IFPA committee that is currently working on a consultant’s document and training manual which will be made available to end-users and consulting engineers to enable them to call for the correct standards in tenders. They have also recently decided to remove the IFPA welder number from the welder certificates issued by Plastics SA and to add a reference field for a weld qualification attachment (i.e. welder test piece certificate) instead.

SAPPMA will be forming more standing committees in the future, depending on the need and with the mandate to look at specific issues beyond the current focus and scope, such as certification, for example.

“The new structure allows us to spend less time in discussions but also creates an opportunity for a more homogenous and harmonised decision-making,” Venter concluded.

SAPPMA

southern african plastic pipe manufacturers association

SAPPMA invites you to its 7th Webinar for 2021

DATE: 25 August 2021

TIME: 9:00 to 10:30 (Registration from 8:45)

PLATFORM: ZOOM

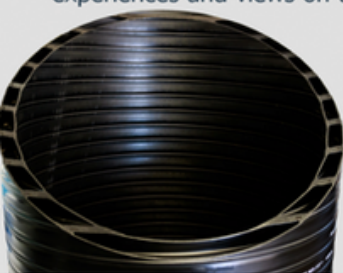
Design and Construction of Thermoplastic Structured Wall Pipeline Systems

Schalk van der Merwe and Stephan Kleynhans, both professional engineers, mechanical and civil, will be looking at aspects to consider that are of importance in the design and construction of Thermoplastic Structured Wall Pipeline Systems.

Their involvement and experience as a duo with a great number of large diameter outfall sewers in South Africa make them ideal candidates to share their experiences and views on this very important topic.



This event is free of charge
To register, click on link below
or send an e-mail to admin@sappma.co.za
You will receive the Zoom link upon registration



BUILD YOUR BRAND BY ADVERTISING ON THE SAPPMA WEBSITE



SAPPMA and IFPA members are invited build their brand exposure by advertising on the SAPPMA website. Our site attracts more than 2 000 visitors a month!

Pay only R3000 for 3 months rotating advert that appears on the SAPPMA home page and members' pages. Your advert will be linked to your company's website.

To make use of this opportunity, simply forward your ad in web-ready format (300 x 600 portrait) to admin@sappma.co.za

BRIEFS

- The changes to the Vicat softening point for fittings is well under way at SABS and will be completed before yearend. The amendments affect SANS 791 and SANS 967 standards for PVC non-pressure pipes and fittings for above- and below ground drainage applications. The minimum Vicat softening point for fittings is being changed from 79°C to 76°C.
- Another change that is in progress at SABS is the amendment for printing colour from green to black for SANS 967.
- SANS 1601 is also being amended to include the use of graded digital microscopes to measure dimensions, like skin thickness.
- The working group dealing with the replacement of the high speed impact test for SANS 966-2 (PVC-m pressure pipes), is ready to submit its recommendations for amendment to the SABS technical sub-committee. This project has been a difficult one and SAPPMA has been struggling to find a suitable replacement test for the flawed high speed impact test for some time.
- The SAPPMA working group has been evaluating test method ISO 13802 - Verification of pendulum impact-testing machines - Charpy Izod and tensile impact-testing; and ISO 9854 - Thermoplastics pipes for the transport of fluids (Determination of pendulum impact strength by the Charpy method — Part 1: General test & Part 2: Test conditions for pipes of various materials).
- ISO 2818 – a supporting standard on preparation of test specimens, for some time. Sufficient test data has been accumulated and a proposal to the SABS SC is imminent.

PHOTOGRAPHY COMPETITION

We are calling on all photographers to submit your creative interpretation of our theme:

THE VALUE AND ROLE OF PLASTIC PIPES IN SA

SAPPMA
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**infrastructure
news.co.za**



The Southern African Plastic Pipe Manufacturers Association (SAPPMA), in association with 3S Media, is proud to announce an exciting new photography competition. We are calling on all photographers – whether you are a full-time professional or a budding photographer who enjoys snapping away on your mobile phone – to submit your creative interpretation of our theme: **“The Value and Role of Plastic Pipes in South Africa”**.

The best entries in this year’s competition will not only stand a chance to win part of the R25 000 cash prize money, but will also be used in a compilation video, a special edition commemorative 2022 calendar, appear in print in IMIESA magazine and be displayed at our 2022 PIPES conference.

DEADLINE EXTENDED

Good news! The deadline for entries has been extended to 5 November 2021!

WHAT TO ENTER?

We are looking for striking digital images to celebrate the important role plastic pipes play in South Africa. Show us how you view plastic pipes and their use in infrastructure (e.g. supplying clean drinking water), “behind the scenes” images that show the manufacturing process, the often unappreciated hard work and team effort involved in a pipeline installation, the skill required when welding a plastic pipes, or a striking, artistic photograph of a plastic pipe, etc.

HOW TO ENTER?

- A maximum of 2 photos per entrant must be submitted in digital format to SAPPMA via email to Admin@sappma.co.za or delivered on a USB stick or CD/DVD by close of business on **Friday, 5 November 2021**.
- We will require full details, including name, phone number, email address and other information about your photo submission.

For more information visit www.sappma.co.za/index.php/events

Improving the competitiveness of the plastics pipe sector in SA:

MerSETA releases research report

Owing to the importance of the plastics pipe industry, Plastics SA and the merSETA Plastics Chamber initiated a study 18 months ago with the aim of identifying the challenges to an ailing and hugely challenged plastic pipe manufacturing sector and making recommendations towards its strengthening.

SAPPMA feels that while there certainly are aspects in the pipe sector that do need improvement, it believes the overarching problem of weak demand is the cause of most of the problems, including inadequate capital expenditure and lack of research and development, which is highlighted in the report.

Strengthening & improving the value chain

One of the key findings of the research was that the pipe manufacturing sector cannot be viewed in isolation. The impact of the broader supply chain and executive players in that supply chain are critical to improving the current position. Value chain optimisation and improved quality management systems were sub-questions of the research methodology, and the study has revealed that much could be learned and leveraged in this area.

Over the course of the research, the announcement by government of intentions to fast-track high-impact structural reforms made in October 2020 under Operation Vulindlela, particularly in water sanitation and reticulation, indicated a government commitment to improving many of the problems that have beset this sector of the economy for many years.

Improving Quality Management Systems

The findings relating to improved quality management systems are closely linked to the supply chain and the opportunities for technical/digital and app based solutions to provide practical and implementable solutions, that with due consideration and planning, could potentially offer significant improvements based on data collection and management innovations and industry driven applications that have credibility with both industry and government. A closer relationship and improved 'co-competencies' between municipal and industry players could potentially improve some of the basic challenges that have beset the supply, installation and implementation of large water and sanitation projects.

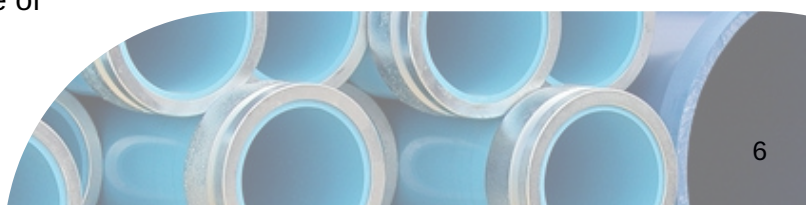
Appointing skilled leaders and staff

The study found some specific skills competencies that need addressing at a technical level, but the more interesting finding was the lack of non-savvy industry leadership and the tendency for "non-engineering" leaders to drive business processes.

Bringing engineering back into the business is viewed as critical for success. So too is the inter-generational transfer of tacit knowledge at artisanal level, both in industry and in government. Related to this, and to be addressed in a balanced way with respect to the inter-generational transfer of knowledge and acumen, is the need for the "old guard" to step aside and to support a new generation of pipe manufacturers.

Using out-dated technology and machines

Out-dated technology and machinery continues to burden the industry, with the cost and quality of importing machinery a huge factor in company competitiveness. However, as with diversification of markets, it is inter-dependent on skills availability, technological and problem solving acumen. More importantly, the sector feels that they cannot carry the financial burden of machinery upgrades alone and they will need government support.



The impact of COVID-19 on the industry

Covid-19 has had a huge impact on the raw material supply chain in the pipe- manufacturing industry, and this continues to impact the industry. However, the human response to the pandemic has seen greater compassion, greater levels of reflection on production processes and the value of agility, flexibility and responsiveness in business. Together with government's commitment to improved water and sanitation projects, and Treasury's financial commitment, it is possible for the pipe-manufacturing sector to effect significant improvements with the right leadership and a collective commitment to utilising digitisation opportunities for supply chain optimisation that is practical and yields positive results.




KEY FINDINGS:

- New small enterprises that enter the industry 'on-the-cheap' due to low entry level requirements, can only compete price-wise, but they cannot compete at a technical level;
- A new black entrant to the industry experiences the pipe manufacturing sector as being controlled by 'the old guard' who protect their market share jealously. This is viewed as a significant obstacle for fledgling black owned businesses;
- Struggle for survival on the part of new small start-up companies is generally attributed to the companies targeting the same market segment;
- A 'too small to be big, but too big to be small' dilemma arises when companies cannot sufficiently offset the increase in overheads that accompanies company growth (specifically purpose-built machinery acquisition) to be able to compete with bigger players;
- Value chain pressure on manufacturers is a constant that has been exacerbated by Covid-19;
- Quality control shortcomings are not so much about the quality management systems per se but rather about the policing of quality inspections. Inspectors need to receive the appropriate training to guarantee that 'what goes into the ground is what was specified as per design;.
- On-site quality controllers are blamed for lacking in basic plastic pipe-related knowledge and awareness;
- Clients, engineers and contractors are castigated for 'superficial compliance' and for treating quality control as a 'rubber-stamping exercise'. For example, abiding by 'generic ISO 9000 paperwork' as opposed to asking for detailed Certificates of Authenticity (CoA);
- Industry reports price-cutting practices by some of the industry via the manipulation of polymer content. These corner-cutting practices compromise the original specification with respect to materials usage;
- There are unscrupulous and opportunistic' traders who enter the public procurement space who do to not carry any production and overhead costs nor do they employ any people, but are merely middlemen in the transaction;
- Fluctuation in raw material supply or availability and quality (HDPE) and volatility in the price of raw materials is seen as a significant challenge;
- Lack of substantive research and development and associated innovation concerning the local production of raw materials is viewed as a challenge. A result of this is industry merely copies developments in the international market.



UNANNOUNCED FACTORY AUDITS NOW THE NORM

AUDIT CHECKLIST

-  Audit satisfactory
-  Nonconformances Found
-  Observation Made



SAPPMA will in future no longer be conducting announced factory visits for auditing purposes, but has made the decision to only do unannounced audits from now on. SAPPMA CEO Jan Venter explains that this decision was taken in line with the pipes body's emphasis on ensuring quality and adherence to standards.

"We usually audit our members twice a year. We believe switching to unannounced factory audits that will take place at random frequencies will allow us to witness our members' every day operations as they truly occur. This will enable us to make recommendations for improvements and give an accurate report of manufacturing processes," he says.

Jan stresses that members are bound by SAPPMA's Code of Conduct to allow factory audits.

"The aim of these audits is not to be punitive, but to assist SAPPMA members in reducing, or eliminating non-conformance and achieving improvements in their day-to-day operations".

- A quality management system / ISO 9001 and up-to-date Works Instructions must be in place.
- Copies of the relevant standards available in production and/or QC.
- Adequate Production Planning with clear Works Orders.
- Raw Material Storage and Control – segregation to prevent accidental usage and / or contamination.
- Certificate of Compliance and Certificate of Analysis to be obtained and validated prior to being filed for all raw materials and a validated procurement process needs to be implemented.
- HDPE material (SANS 4427) to be pre-compounded (No natural material and in-house batching) / Pre-mix Control of PVC material – verification, formulation, works instructions, marking, handling and storage.
- Reworked Material Control to prevent contamination and use of 3rd party material is prohibited.
- Reworking preferably on site with auditing of external recyclers to ensure compliance to SAPPMA requirements.



Audit Check List

- Usage of Reworked Material in line with SAPPMA / SANS requirements.
- Mass Balance to be kept.
- Certified material / material from recognised suppliers – raw materials, rubbers, etc. No prohibited items – Lead based stabilisers, 3rd party reworked, etc.
- Die Store controls and procedures to be in place to ensure consistency of product (minimise lines, etc.) and prevent theft of tooling.
- Annual maintenance of machines and equipment – extruders, mixers, dryers, etc.
- Machine conditions to be checked regularly to minimise water and hydraulic leaks, ensure safety, etc.
- Extrusion Control – production records complete, in line with Specific Permit Conditions and properly filed.
- Correct material to extruders and recording of relevant batch numbers.
- Visual Standards to be available to show acceptable standards of workmanship, pipe ends, etc.
- In-Line Tests (workmanship, colour, dimensions, etc.) in line with Specific Permit Conditions and filing of records.
- Product Marking – comply with standard and not influence quality of product.
- Product Marking – Durable.
- Handling of products – forklift / handling damage.
- All pipes to be properly ended and socket dimensions to comply with standards.
- Adequate laboratory equipment - up to date calibration / verification file.
- Laboratory operator skills.
- Tests and frequency to comply with Specific Permit Conditions of certification body – Test matrix.
- Laboratory Records - filing and failures.
- Proven traceability of products
- A "Non-conformance File" shall be implemented and maintained.
- Storage of Pipe and Fittings – stacking heights, UV damage, etc.
- General housekeeping.
- Participation in SAPPMA meetings and working groups.

For more information about the audits or the process, please direct your enquiry to Jan@sappma.co.za

WHY MORE WOMEN SHOULD JOIN THE PIPE MANUFACTURING INDUSTRY



Although women make up almost half of the total labour force in Europe* and are filling many roles that used to be dominated by males, they remain highly underrepresented in the manufacturing industry.

Manufacturing jobs were once manually intensive or consisted of mostly repetitive line-work. However, with robots, machines, and automatization the situation has changed and skilled gender-neutral roles have opened up. Companies like Pipelife has undergone positive developments with regards to diversity by encouraging an increase of female talent to take on a mix of responsibilities.

Promoting gender equality in a male dominated space

Pipelife Sweden reports that concerted efforts bridge the gender gap has resulted in women being more fairly represented across all jobs at the company. Female talent makes up 25% of Pipelife Sweden's total workforce, while at their injection moulding production in Ljung, an impressive 40% of the workforce is female.

How gender equality benefit the industry

The manufacturing industry has access to a wealth of untapped talent within its share of female workers. Attracting female talent can help companies fill the growing lack of skilled workers and is also paramount to secure the workforce of the future as a large number of baby boomers will retire in the next decade.

Studies show that two of the most important workplace factors for women are the ability to do what they do best and work-life balance, which are both achievable today in manufacturing roles. Moreover, diversity can benefit the industry in the following ways:

- more diverse perspectives
- more innovative and creative approaches and solutions
- more balanced organizational management
- improved team productivity
- Increasing the percentage of female talent presents a tremendous opportunity for both inclusive and sustainable economic growth.

Factors that prevent women from entering the manufacturing field:

When people hear the term "manufacturing", they often picture heavy-duty workmen working gruelling long hours or doing repetitive and unchallenging line-work. Except for the fact that the industry is still male dominated, the image is outdated. Robots and machines are now doing a lot of the heavy lifting and automatization takes care of a majority of repetitive tasks. However, preconceptions such as these have been kept alive for decades, which may answer why so few women do not even consider the industry an opportunity.

Reference: TWB Data Catalog, 2020)

SIZABANTU COMPLETES 5 000 HA IRRIGATION PROJECT IN ANGOLA

Sizabantu Piping Systems has recently completed one of the largest irrigation projects in the history of Angola. Covering a distance of 5000 hectares, Sizabantu supplied 700 tons of PVC pipes which were all manufactured at the company's factory in Richards Bay.

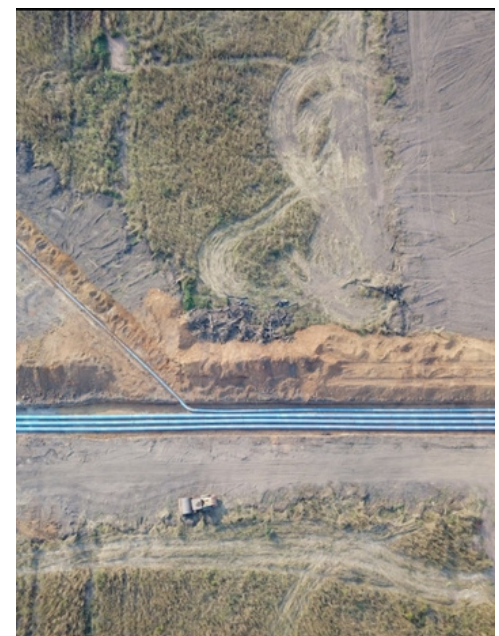
Thanks to the fact that Sizabantu offers a full pipeline solution, the client was able to consolidate the full projects' pipeline requirement with them. Sizabantu Exports offered a full logistics package for loading and shipping the sixty two 40" containers by sea to the West Coast of Africa.

"We were extremely proud to be a part of the landmark project and will continue to service our clients with our hands-on approach," says Shaun Saraiva, Sizabantu's Exports Director.



PIPES THAT WERE USED FOR THE PROJECT:

- PVC type – 63mm to 400mm
- PN 9 PVC-M & TOM 500 PVC-O 160mm – 500mm
- PN 12 and 16
- Fittings – Supplied all standard and fabricated pvc and steel fittings to suite – Bends, tees, reducers, all valves, couplings, adaptors, fastening accessories etc



SIZABANTU
PIPING SYSTEMS
Official distributor of **MOLECOR**
South Africa

SAFRIPOL is leading polymer producer and marketer, serving valued customers and markets in South Africa, Africa and beyond. A proud member of KAP, a Johannesburg Stock Exchange listed company, Safripol has grown to become the second largest polymer producer in Sub-Saharan Africa, with customers in every sector of industry and business.



HISTORY

Safripol was established in South Africa in 1972. Today, the company employs over 500 people in Johannesburg, Sasolburg and Duran. The company is the only local producer of HDPE with technology licensed by LyondellBasell. They supply the South African and global markets with PET, HDPE and PP from manufacturing operations in Sasolburg and Durban. The commercial head office is based in Bryanston, Johannesburg,

Safripol has leveraged the best technologies and operational processes through global partnerships to design and provide fit-for-purpose solutions that local customers have come to expect from a true market leader.

HIGH DENSITY POLYETHYLENE (HDPE) PRODUCT SOLUTIONS

HDPE is polymerized from ethylene to produce a plastic with excellent stiffness and environmental stress crack resistance. It has superb chemical resistance and low water absorption and is easily processed and machined. The main applications of HDPE include blow-moulded containers, crates, drums, blown film and pipe. It is ideally suited to food contact applications. Safripol also produces a HDPE containing carbon black for the pipe industry which is conforming to PE 100 pipe specification.

Safripol utilizes Hoechst slurry polymerization technology, which was originally derived from Hostalen. A technology agreement with Lyondellbasell allows for further updates of the technology as might be needed to meet the requirements of the market.

iMPACT100

Safripol's flagship HDPE PE100 pipe resin, iMPACT100, provides a single solution to both the water and wastewater transfer markets that conforms to the latest ISO standards. iMPACT100 is the result of company's strong international partnerships which encourage the use of the very best pipe technology and operational and safety standards.

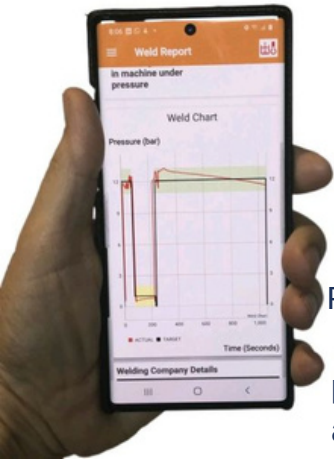
iMPACT100 is a premium material and its high molecular mass grade offers good impact strength, abrasion, chemical and UV resistance. Compliant with the latest PE100 material requirements of ISO/SANS 4427, iMPACT100 is the preferred product for use in large-bore pipes up to 1.2 m in diameter, suitable for potable water, stormwater and sewerage pipes.

**For more information, visit
www.safripol.com**



PEWeldBank

Now available in South Africa as a fully featured Productivity and Risk Management Tool.



PEWeldBank mobile app and data recording system replaces the need for manual paper records and ensures correct welding parameters are being adhered to by prompting the operator through each fusion welding step, whilst displaying timers, actual pressures and temperatures. All weld data is securely uploaded and stored in the online Fusion Management System (FMS) in real time, allowing you to review any weld, track welder and project productivity, and share reports with your clients.

PEWeldbank is recommended for all projects where weld protocol records are required. The functionality includes:

- Works with any hydraulic butt fusion machine.
- Records pressure, time, heater plate temperature, ambient temperature and humidity data.
- Records all pipe and fittings batch numbers for complete traceability.
- Compliance with most welding standards - ASTM F2620, DVS 2207-1 PE, DVS 2207-11 PP, ISO 21307, etc.
- Log GPS location of every weld, as well as installed location if it differs from the location where the welding was originally undertaken.
- Before and after weld photos can be uploaded to assist with visual inspection.
- Record general housekeeping / user defined checklist.

Features:

PEWeldBank is a fully featured Productivity and Risk Management Tool that Records Weld Data, Calculates Parameters for a wide variety of international standards, guides welders tutorial, weld assessment.



Please contact Avesco for more information or to arrange a demonstration:

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Email: Jacques@avesco.co.za

Website: www.avesco.co.za



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