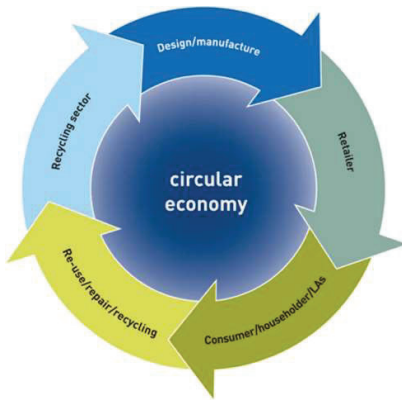


SG01: Enhancing the Circular Economy



It is now well recognised that the circular economy presents a more sustainable business model for the plastics industry than the linear economy. In the circular economy, plastic never becomes waste, but rather it is a resource that remains in the plastics loop at the highest utility and value. The circular economy reduces the use of virgin resources, it reduces plastic pollution and decouples consumption from economic growth.

Priority SDG Goals



The circular economy for plastics prioritises three SDG's, at the heart of which is "responsible consumption and production". It enables greater resource productivity and uses efficiency by enabling re-use, re-purposing and recycling value-chains, while preserving valuable resources, and impact to the environment.

Multi-stakeholder push for circular economy

There is currently a global demand for circular and more sustainable polymers. Brand-owners are making commitments to include recycled polymers in their packaging, and governments are incentivising the use of recycled content.

Recently the Section 18 Extended Producer Responsibility (EPR) gazette was published, which now makes it mandatory for producers in South Africa to contribute EPR fees towards the end of life management of their packaging. The EPR legislation has set out targets for the next 5 years for waste collection, recycling rates as well as the inclusion of recycled content and re-use targets. According to the new EPR legislation, Safripol is recognised as a "producer" for its own packaging material. Based on this, we are now registered with the Department of Forestry, Fisheries and the Environment (DFFE) for EPR.

Advancing Recycling

The circular economy is the cornerstone of Safripol's Sustainability Goals for 2025. As a significant producer of polymers in South Africa, Safripol is committed to being part of the solution.



To meet its 2025 goals, Safripol is using its existing infrastructure and capabilities and is investing in new assets, to scale-up recycled polymers and provide the market with a one-bag solution containing recycled content.

PET is the work-horse of the modern economy. The EPR legislation has set a target of 20% inclusion of recycled content in PET beverage bottles by 2025. This past year, we successfully evaluated the production capability of our PET facility to produce a one-bag solution containing 15-25% recycled content. Safripol's one bag rPET solution was successfully converted by selected customers into new packaging products. All resin blends as well as packaging containing up to 15% post-consumer recycle inclusion, was approved for Food Contact Compliance according to European Food Regulations by a leading European testing authority.



Designing for Circularity

We are designing our resins with reduce, re-use and recycling in mind. We have also committed to working closely with the value chain to transition our product portfolio to align with the circular economy.

Safripol is positioning itself with a developmental focus on durable applications (such as durable food packaging and containers, beverage bottles, household clear injection moulded and blow moulded containers, large part blow moulded products, agricultural nets, and pipes).

Returnable PET resin

Safripol is developing a PET resin for use in the refillable or returnable bottle market. Our returnable PET resin supports the global drive for reducing the consumption of raw materials by the use of more sustainable circular products. PET resin can be used in the returnable bottle market, with multiple re-use cycles, thereby reducing dependency on new raw materials, and it is expected to have a lower carbon footprint.

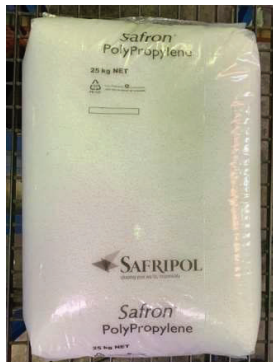


Returnable Plastic Pallets with 100% recycled content

Saving 25 000 trees was one of the main motivations back in 2015 for Safripol transitioning a portion of its pallet fleet used for tertiary packaging from one-way wooden pallets to returnable, multi-use plastic pallets. The plastic pallets are designed for up to 10 re-use cycles. The returnable pallets are used in a closed-loop system, where after each use, they are returned for repackaging of new products. At end of life of the plastic pallets, they are recycled back into new pallets. Safripol's returnable plastic pallets are comprised of 100% recycled plastics. In 2020, Safripol had a fleet of 4 860 of returnable plastic pallets. 224 metric tons of returnable plastic pallets was within use for its tertiary packaging. The returnable plastic pallets have demonstrated that circular business models are possible.



Transition to clear film for primary packaging



Polyethylene flexible films form the single biggest component of all plastic packaging recycled in South Africa. Safripol uses polyethylene tubular films as primary packaging material for its PP and HDPE resins. It is well known that the use of coloured pigments or dyes in plastic flexible films is undesirable for recycling, due to the impact the colour has on the finished recycled product. Using clear plastic packaging material is preferred as it maximises recycling opportunities for many packaging applications.

Waste reclaimers therefore typically favour the collection of clear plastic packaging as they are able to earn a higher rate than the collection of coloured plastics. In line with this best practice, Safripol has migrated close to 90% of its 25 kg polyethylene bags from coloured film to clear

film. In addition, only black ink with minimum printing is used on Safripol's clear films, to further ensure that the value of the flexible films is maintained for downstream recycling. Safripol is continuing to develop innovative solutions to design its packaging materials in accordance with the circular economy and governmental legislation regarding plastic films.

Reducing Leakage of Plastics

Safripol is committed to supporting initiatives that keep plastic waste out of the environment and in the circular economy.

Establishing waste collection sites and mini-MRF's along the uMngeni River catchment

Many informal communities find themselves living along the lower uMngeni and uMhlangane river catchments in KwaZulu-Natal, where waste management practices are lacking, and the waterways and natural open spaces are polluted and stressed. This past year, we partnered with Green Corridors NPC to expand on their existing initiatives in the area.

Our project which also involved partnering with PETCO, focussed on establishing three waste collection sites in the Blue Lagoon and nearby areas at the following identified hot-spots:

- Johanna Road litter boom
- Connaught Bridge
- Beachwood Mangroves



The main goal of the project is to establish waste collection areas or mini-material recovery facilities (MRF's) equipped with location-specific infrastructure to support the collection, sorting, storage and transportation of recovered materials to existing recyclers in the area, or to the Green Corridors KwaMashu Materials Beneficiation Centre (KMBC).

Some of the outputs that this project has delivered includes:

- 1x Mini-MRF at Johanna Road litter boom
- 2x branded waste storage containers for the sites
- Secured fencing and weighing areas
- Trailer for transportation of collected waste to recyclers/KMBC
- 2 litter boom operators employed
- Widespread community engagement and education
- 3.4 metric tons of waste collected and diverted from the environment.
- 1.7 metric tons of the recovered materials were recycled into new secondary products.



Supporting black-owned enterprise to scale up the litter booms installations for extracting plastic waste from waterways

We are proud to support Tri-ecotours to scale up the implementation of the litter booms at additional hot spots. Six additional litter booms have been installed since April 2021 serving as a primary mechanism for trapping plastic waste at the source and preventing leakage into the ocean.

The Green Corridors NPC has over the past years developed litter boom traps for intercepting water-borne plastic waste and other materials from entering the ocean. The litter booms are floating devices made up of HDPE pipe and installed at strategic locations along waterways. They collect and retain floating litter, vegetation, and other debris. They are secured to the banks and float on the river catching floating waste, but allow water to flow under and around them. The waste is collected, recovered and diverted away from the natural waterways so that it does not end up in the ocean.



Based on the success of the Johanna Road litter boom, this year we have partnered with Tri-ecotours in collaboration with Green Corridors NPC, to scale up the implementation of the litter booms at additional hot spots along the lower uMngeni River and nearby tributaries, and along the Ohlange River.



The litter boom consists of a pipe produced by Safripol's HDPE resin, with a unique design and installation, which ensures efficient waste trapping even during raining seasons.

The litter booms are managed by the community and two new litter boom operators have been employed to manage the new installations.



Active Communities taking ownership of the mini-MRF's



Through the Green Corridors NPC, community engagements and dialogues with the Johanna Road community were arranged. Community dialogue was critical to get community participation in the functioning and value-add of the MRF's.

To ensure community ownership of the site, and to create awareness about the impact of plastic pollution, and the value of recycling, a competition was run within the Johanna Road settlement to identify the best artwork for the branding of the waste storage containers which best resonated with waste collection and recycling objectives. The winner received a monetary award and was tasked with painting the containers with the winning artwork.



Establishing the KwaMashu Materials Beneficiation Centre for processing of difficult to recycle plastics



The KwaMashu Materials Beneficiation Centre (KMBC) has been established in the KwaMashu Township in KwaZulu-Natal to serve as a product development hub for developing prototypes for beneficiation of hard to recycle plastics.

Presently non-recyclable materials have limited value and are mainly land-filled or incinerated. Both of these options are undesirable not only because of their environmental impacts, but also because precious resources are lost forever to the materials economy. We recently partnered with the:

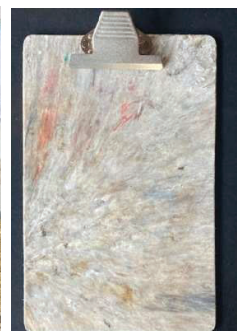
Green Corridors NPC to jointly sponsor the establishment of KMBC as a fully-fledged materials beneficiation centre. Green Corridors is also partnered with the eThekweni Municipality, which has provided inter alia funding, resources, and the operational site, making this an interesting public-private initiative.

The main objective of KMBC is to undertake new product development to beneficiate low-value non-recyclables into high-value products. Non-recyclable materials, including plastic, glass, and alien plants, are removed and recovered from the nearby riverine corridors, litter booms, and green spaces in the lower uMngeni and nearby catchments, and then repurposed at KMBC into useful products.

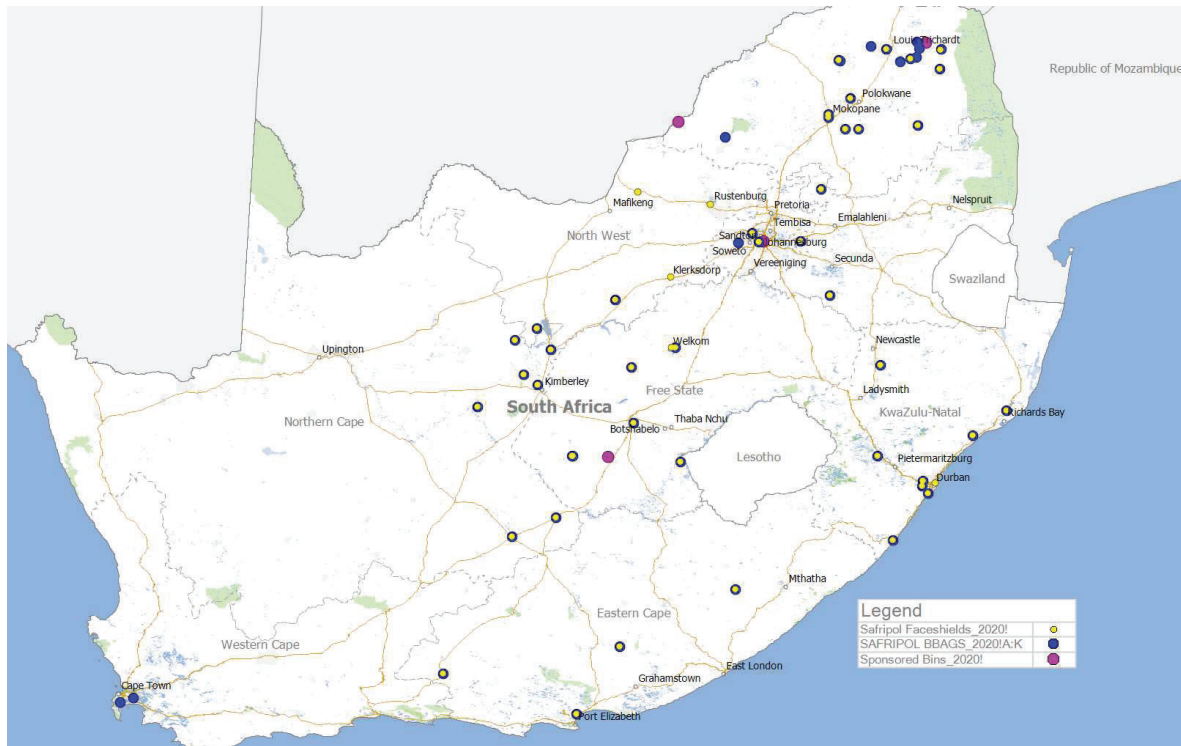
The centre now houses plastic shredders, glass crusher, sheet press, an extruder as well as precious plastics equipment, needed for the development of the different product lines. The objective of KMBC is to demonstrate the viability of a product line, which can then be scaled-up and commercialised, thereby stimulating economic development in the KwaMashu Township.

Some of the products under development include ocean pavers, curbstones, school desks, paper boards, and modified wheels for wheelie bins.

The centre currently employs locals from the community who are also receiving hands-on training on product development.



Safripol sponsors bulk bags and wheelie bins for clean-up and separation at source initiatives across the country



Safripol once again donated 1500 bulk bags and 500 recycling colour coded wheelie bins to PETCO for distribution to beneficiaries involved in waste collection and recycling across the country. This year 1500 face shields were also donated as part of our COVID-19 relief.

The four colour coded wheelie bin sets enable easy implementation of separation at source and were distributed to beneficiaries in Limpopo, Gauteng, and the Free State. The 1-ton bulk bags and face shields were distributed to numerous entities country-wide including local municipalities, non-governmental organisations, recyclers, buy-back centres, and small cooperatives. The bulk bags enable ease of waste collection and can be re-used several times for waste collection, and are recyclable at end of life.



The Bulamahlo Home & Day Care Centre in the Thembisa community was one of the beneficiaries for the separation-at-source project.

The Safripol family #WalkedtheTalk leaving only footprints in the sand

Remembering International Coastal Clean-up September 2019, Beachwood Mangroves, KwaZulu Natal



National Water week, March 2020, Quarry Road, KwaZulu Natal



Safripol partnered with Green Corridors NPC for the clean-up in Quarry Road during National Water week in March 2020

Ten community members were nominated to assist with the clean-up during National Water week. Safripol sponsored t-shirts, caps, gumboots, gloves, goodies bags and each participant also received a monetary reward for their efforts.

Beach Clean-up December 2020, Umgeni River mouth & Blue Lagoon, KwaZulu Natal

110 participants, 135 bags and 658kg recyclables recovered in just two hours

Safripol in partnership with Green Corridors and supported by Plastics SA, arranged a clean-up at the Umgeni River mouth and the Blue Lagoon Beach. Our Safripol family **#WalkedTheTalk** by collecting valuable materials that were strewn along the river bank, across the beach, and in the surrounding estuary. In the two-hour clean-up, 135 bags of valuable recyclables including plastic, paper, glass, and tins were collected. This equated to 658kg of waste being recovered from the environment for recycling, which otherwise would have ended up in the ocean, contributing to marine pollution.

