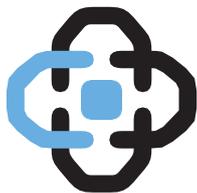


ECO-FRIENDLY
HYGIENIC STRONG
LIGHTWEIGHT
INNOVATIVE
PATENTED TECHNOLOGY
EASY TO BRAND
AFFORDABLE
VIRTUALLY UNBREAKABLE
PACKAGING



coolsealsa
PACKAGING INNOVATION



introduction

CoolSeal SA offers an innovation in packaging: a box that is eco-friendly and lightweight, affordable without compromising on quality or performance, whilst offering unique and state-of-the-art branding opportunities.

coolseal evolution

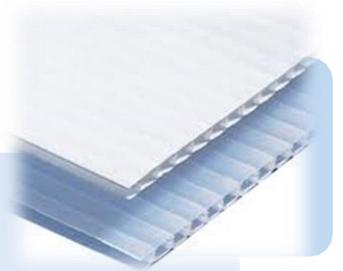
CoolSeal had originally been designed and developed for the cold chain delivery of chilled products such as meat and fish and has served as an effective replacement for polystyrene boxes in Europe for several years.

Since its launch in South Africa, however, several new applications and benefits have been identified.

The boxes are particularly well-suited to the packaging of delicate fruit as it ripens faster in the boxes and does not bruise as easily as it would if packaged in cardboard.

CoolSeal is also being used for various applications in wet conditions, including the mining industry where it is used to transport sensitive resins and equipment.

The boxes are delivered flat, pre-folded and packed in bundles, minimising delivery and storage costs. The patented easy-erect design enables the box to be ready in one simple movement with no other assembly required.



sealed edge technology

Our patented technology is used to seal the edges to provide a strong, hygienic box that is virtually unbreakable, eliminating the problem of polystyrene bead contamination and blocked drains.

The CoolSeal Packaging System eliminates waxed cardboard boxes that are virtually impossible to recycle and extremely heavy, as CoolSeal is lightweight and **100% recyclable**. It also competes with solid and fibre board boxes, as it is less than half the weight and completely impervious to liquids.

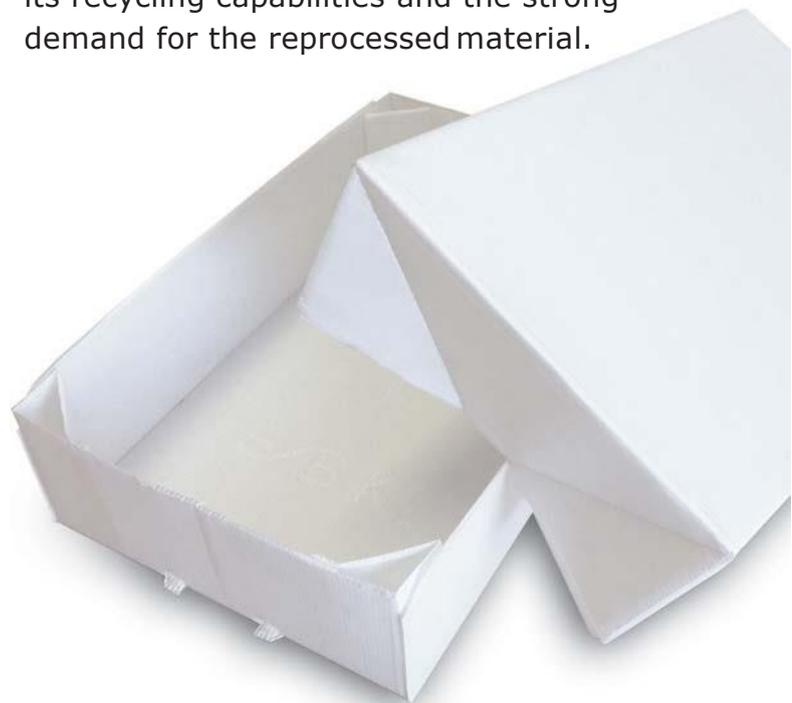
The boxes are constructed from **lightweight Polypropylene**, a material chosen because of its recycling capabilities and the strong demand for the reprocessed material.

Reduced storage space

CoolSeal boxes are **delivered flat, pre-folded and packed in bundles**, minimising delivery and storage costs. They can be stored flat and quickly assembled at the packers.

CoolSeal boxes are tough, which means an end to EPS breakages and beads blowing around and clogging factory drains. They are up to 30% smaller than like for like capacity EPS boxes. This produces **significant cost savings across all modes of transport**, especially for airfreight.

The patented easy-erect design enables 4-corner glue boxes to be **ready in one simple movement**. There is also a range of stacker boxes which include easy erect bases and



pop up lids. These packs are designed for column stacking and interlocking. The trays can be filled and stacked without the lids, and then moved to icing, labeling and packing areas.

A Leak-Proof CoolSeal box is also available with self-locking bases and pop up lids. Machine erect trays and lids are available for use in larger packers, or in seafood clusters via distributors.

thermal barrier

Trapped air is the key. Our patented manufacturing process allows us to seal every edge of every pack.

We have developed lightweight yet wide material that is weak without sealing. Seal the edge however, and the product is transformed, with more air trapped inside. This trapped air in both tray and lid acts

like double glazing, **restricting the flow of temperature** very effectively. There is a significant wall of trapped air around a pallet of fish packed in CoolSeal boxes.



environmental benefits

There is a high demand for re-processed polypropylene with a vast array of applications. Who knows, the bumper on your car may be made from recycled CoolSeal boxes!

The flat empty boxes can be baled or simply palletised for collection by a plastics reprocessor. **Polypropylene has a higher raw material value than EPS** and reprocessing costs are significantly lower.

CoolSeal can be **safely disposed of with general plastic waste**. PP's melt-flow index

makes it very flexible in the waste stream. Even this option generates huge savings, with skip hire costs slashed and avoiding the ever-increasing landfill charges. This is because CoolSeal when flattened has less than 10% of the volume of EPS. It is also inert and **can be safely thermally recycled**. It is stable in a landfill so that it will not create dangerous soft spots where lorries can tip over as sometimes occurs with EPS that re-expands. We regard landfill as the least desirable method of disposal that should only be used as a last resort.



Industry applications 1



(1) Seafood, Meat & Poultry

CoolSeal has been used in the seafood, meat and poultry industries for years. It can be used to package fresh, filleted, frozen or retail-designated products, including live lobsters, shellfish, meat and processed foods.

It offers:

- Excellent thermal insulation
- Compliance with local and international environmental packaging laws
- 30% smaller than EPS boxes
- Approved for **direct contact food use**
- Already widely used in European markets
- Variety of sizes, colours, prints and designs
- Excellent print quality



(2) Agricultural

CoolSeal can be manufactured as trays or boxes with/without lids. **Ventilation holes, branding and stackability can be arranged** according to the need of the product.

Our agricultural boxes are particularly suited for use with fruit and vegetables that need to be wet-packed, e.g. bananas or asparagus.

It offers:

- Boxes can be modified according to requirements
- Variety of sizes, shapes and capabilities
- Lightweight
- **Fully recyclable**
- Compliant with local and international environmental packaging laws
- **Moisture and bacteria-resistant**
- Wetproof
- Soft boxes reduce bruising of fruit
- Fruit can be wet-packed





Industry applications 2



(3) Mining & Manufacturing

Our boxes can be used successfully in underground mining applications and is used to keep moisture-sensitive items, such as explosives, rock grips or tools, dry.

- Boxes are sturdy and impact-resistant
- Moisture-proof
- Chemical-resistant
- Suitable to keep delicate components dry



(4) Retail & Pharmaceutical

Suitable for promotional, retail, industrial, pharmaceutical and manufacturing applications.

- Sturdy and long-lasting
- Returnable and reusable
- Non-magnetic - suitable for shipping delicate electronic components
- Will not contaminate pharmaceutical products



(5) Fresh flowers & Herbs

- Boxes can be modified according to requirements
- Variety of sizes, shapes and capabilities
- Lightweight
- Fully recyclable and reusable
- Compliant with local and international packaging laws
- Moisture and bacteria-resistant
- Wetproof
- Soft but sturdy boxes eliminate crushing/bruising
- Can be used to export flowers or transport whole plants and seedlings (in soil)

