LifeSpan copper based film - Amcor Chile - Copperprotek

**KEY FEATURES**

- Contains Copper microparticles
- The microparticles inhibit the development of microorganisms
- Extends shelf life by up to 250%
- Ideally suited for cheese and fresh processed meat such as ham, bacon and fresh chicken
- Preserves and protects products through the all value chain

Amcor is a global leader in developing and producing responsible packaging solutions for food, beverage, pharmaceutical, medical, home and personal care, and other products. Amcor works with leading companies around the world to protect their products and the people who rely on them, differentiate brands, and improve supply chains through a range of flexible and rigid packaging, specialty cartons, closures, and services. The company is focused on making packaging that is increasingly lighter weight, recyclable and reusable, and made using an increasing amount of recycled content.

Copperprotek is a leading Chilean biotechnology company in the use of biomaterials to streamline the food production and marketing chain. They believe that their technological developments are a scalable and cost-efficient solution to ensure that your food reaches your markets and consumers in the best possible conditions.
Gustavo Compagnone, Product Development Manager, Amcor Flexibles Chile says, “For the development of our Lifespan Copper Base technology, we started with the existing packaging in the market (current packaging specifications) and thought about how we could increase the shelf life of the packed product by adding some copper microparticles into the design of the packaging. This add-on to the packaging structure did not impact the customer production chain, distribution or sales supply chain. Regarding the flexible packaging, we did not need to change anything, since all our packaging is protected against atmospheric conditions.”

How have you designed the packaging to contain and protect the product from spoilage and damage through manufacture, warehouse and the various stages of distribution?

How have you designed the packaging to preserve, enhance product appeal and extend shelf life?

- A masterbatch containing copper salts in different stages was developed by Amcor’s partner Copperprotek.
- Firstly, Amcor had to evaluate the copper’s quantity needed to obtain the best results by limiting the development of microorganisms (bacteria and fungi) inside the packaging that spoil the food packed.
- Then, Amcor developed a new extrusion process to add those microparticles to their polyethylene formulations.
- Lastly, Amcor followed the conversion process until obtaining the laminate with copper particles. This laminate is then supplied to their customers as a roll or preformed packaging.
How have you designed the packaging to provide convenience to not waste food handling?

With a great collaboration between Copperprotek and Amcor, Amcor was able to extend the shelf life of fresh packed products such as fresh bacon or fresh cheese. This revolutionary technology of adding copper particles not only improved shelf life but also reduced food waste across the value chain.

How have you designed the packaging to promote and communicate to consumers how to handle, store, prepare and reuse food products?

Amcor’s new technology does not impact the way consumers have to handle or store the food products. It is left to the brand owner to ensure that their packaging communicates the benefits of this technology, such as reduction of food waste and extension of shelf life, to their customers.

How have you designed the pack to meet Global, Regional & Country Packaging/Sustainability and recycling targets?

This solution is not currently recyclable. Although, Amcor is working hard to have a recycle-ready version that will be available by 2025. The copper technology is added in the design and manufacturing.

Do you believe that your packaging effectively and intuitively minimises food waste?

Trials were undertaken in fresh food laboratories and also with some fresh food customers and below are the results showing the number of additional days of shelf life offered through this solution.

### Additional shelf life results:

- **Product:** Sliced pork ham  
  **Net weight:** 250 g  
  **Current shelf life:** 50 days  
  **Storage temperature:** 2 - 4°C  
  **Additional shelf life:** 30 days  
  **Increase:** +60%

- **Product:** Chicken leg  
  **Net weight:** 1 kg  
  **Current shelf life:** 13 days  
  **Storage temperature:** 2 - 3°C  
  **Additional shelf life:** 11 days  
  **Increase:** +85%

- **Product:** Bacon  
  **Net weight:** 2 kg  
  **Current shelf life:** 12 days  
  **Storage temperature:** 0 - 4°C  
  **Additional shelf life:** 23 days  
  **Increase:** +192%

- **Product:** Fresh cheese  
  **Net weight:** 350 g  
  **Current shelf life:** 16 days  
  **Storage temperature:** 3 - 2°C  
  **Additional shelf life:** 5 days  
  **Increase:** +31%

Note: The impact on shelf life will depend on the product, process, ingredients, among other factors, and each case will be treated as a joint development to understand how much it will increase.
What does winning a global WorldStar Packaging Award mean to your business?

Gino Villanueva, Sales Manager Amcor Flexibles Chile says, “For Amcor, winning this important packaging industry global award means world-class recognition, fully aligned with several of our company objectives; such as taking care of the health and well-being of consumers, working as a team with strategic partners such as Copperprotek, helping our customers to win in the market with competitiveness and to reduce losses, but above all, helping the world reduce food waste.”

“Throughout the whole supply chain, from production to consumption, the global percentage of food waste is around 30%, if we think that our Amcor LifeSpan® Copper Based Film solution this allows us to extend the products’ shelf-life by 2 to 3 times. This solution is clearly a fantastic opportunity for both our customers and consumers.”

WorldStar Packaging Awards

Owned & Operated by the World Packaging Organisation the WorldStar Packaging Awards is the pre-eminent awards program in the world. Only packaging that has won recognition in a recognised national or regional competition, either in the present year or the previous year is eligible to apply for WorldStar Competition. Currently, 73 competitions from 39 countries and regions are recognised by WPO as qualifying for entry to the WorldStar Packaging Awards program.

There are 18 General award categories and 5 special awards including Accessible Packaging Design, Marketing, Sustainable Packaging Design, Packaging that Saves Food and the President’s Award.

WorldStar Special Award - Save Food

The Save Food Packaging Design Special Award is designed to recognise companies that are working to minimise or prevent food waste from paddock to plate using innovative and intuitive design features that can contain & protect, preserve and extend shelf life; all the while meeting global sustainable packaging targets.

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