LifeSpan® for Broccoli & Florets



LifeSpan® Modified Atmosphere Packaging (MAP)

LifeSpan® box liners are an innovation in post-harvest packaging that extend the storage life of fresh produce. Used commercially for over 15 years, LifeSpan® is now an important packaging component for many of the worlds leading fresh produce exporters.

LifeSpan® for Broccoli

LifeSpan® box liners hold broccoli in good condition without the need for top-icing. LifeSpan® can be useful for distribution of broccoli through a managed cold chain.

For export shipping, stored near 0°C / 32°F, it is possible to hold broccoli for up to 40 days in LifeSpan® box liners and still have commercial quality broccoli at out-turn.

For domestic distribution, at a continuous 8°C / 46°F, LifeSpan® holds broccoli at commercial quality for 12 days.

LifeSpan® packaging formats used with florets:

- Food Service bulk packaging loose florets within the LifeSpan® box liner.
- Florets packed in highly perforated small retail bags

 then into a LifeSpan® master box liner, to achieve
 MAP during distribution and ambient atmosphere at retail.

Packed florets held at 0-5°C/32-41°F maintain excellent quality after 10 days, and after 14 days quality still meets commercial requirements. However, extended storage and shelf life of florets is dependent on growing, harvest, cooling, processing and sanitation practices.

How it works

LifeSpan® MAP Packaging allows the creation of a low oxygen (O_2) , increased carbon dioxide (CO_2) , and high humidity atmosphere inside a box liner. This is similar in concept to a CA cool store.





Contacts

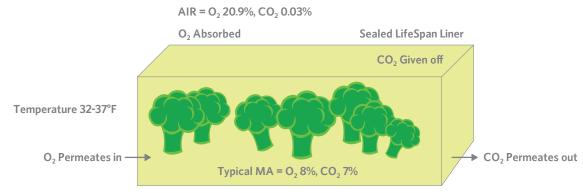
For more information, visit www.amcor.com/lifespan or email lifespan@amcor.com

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LifeSpan® for Broccoli & Florets



To keep MA constant: Oxygen absorbed must equal Oxygen entering the bag & vice versa for Carbon Dioxide

Benefits of Iceless Broccoli achieved with LifeSpan®

Elimination of top-ice in packed broccoli provides several benefits.

- If the ice is frozen to well below 0°C / 32°F when it is packed onto the broccoli, it can cause freezer burn to the tender broccoli buds. These will subsequently die and turn brown.
- As the ice melts, the water that forms is a preferred environment for bacterial and fungal growths.
 LifeSpan® can substantially prevent the development of head or crown rots on broccoli during distribution.
- Water is also a problem when broccoli is unpacked in a retail store. Water spillages are slip hazards to both retail staff and customers.
- Elimination of ice allows cheaper rigid packaging to be used. A simple corrugated board box will remain dry as LifeSpan® holds the moisture from the broccoli away from the board.



 Ice also occupies space within each box or crate. With the elimination of ice, this space becomes available to hold further broccoli, allowing greater load weights to be transported. • Together with the elimination of the cost of ice, these various factors can all provide substantial cost savings in the packaging and transport of broccoli.

Effect of Storage Temperature

Respiration rate of broccoli & florets vary with storage temperature and there are different LifeSpan® designs for each temperature range. The oxygen and carbon dioxide permeability of a LifeSpan® box liner is specifically designed for the storage temperature in use. The modified atmosphere created will significantly reduce the broccoli & florets respiration rate, with the following benefits.

Effect of LifeSpan® on Broccoli & Florets

- Extends the post harvest life of broccoli & florets by slowing down the aging processes.
- Reduces rots by directly inhibiting the growth of pathogens and by maintaining the health and integrity of the cut surfaces.
- Preserve fresh flavour and nutritional value.
- No loss of moisture or product weight and maintenance of freshness.
- Maintains green colour of broccoli crown and broccoli florets by preventing chlorophyll degradation.





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