StePac PPC

ADVANCED MODIFIED ATMOSPHERE
PACKAGING SOLUTIONS FOR

FRESH PRODUCE

Xtend® | Xflow™ | Xgo™

PRODUCT CATALOG

FRESHNESS ASSURED

BRCGS Packaging Materials CERTIFICATED

HACCP IQC

ISO 9001:2015 IQC

ISO 14001:2015 IQC

ISO 45001:2018 IQC

REDcert

WHO ARE WE

Global Leader In Modified Atmosphere Packaging Solutions For Fresh Produce

StePacPPC is proud to be part of the PPC FLEX family leading the future of functional flexible packaging together. We make the world a better place by reducing global food waste.

StePacPPC's broad and versatile range of sustainable modified atmosphere packaging (MAP) solutions address three major challenges facing the fresh produce industry: supply chain waste reduction, cost reduction, and supporting a circular economy.

Committed to innovation, StePacPPC is attentive to market trends and is continuously striving to develop cutting edge solutions to meet customer requirements. With over 30 years of experience in combining postharvest, polymer and packaging expertise to deliver optimal packaging solutions, we offer a broad range of products that preserve fresh produce quality, reduce supply chain waste and with-it global greenhouse gas emissions. Our portfolio includes products that support a circular economy such as fully recyclable solutions, packaging containing chemically recycled content, and compostable solutions.

StePacPPC has global presence with production and sales facilities in Israel and USA, sales and technical support in United Kingdom and Brazil and distributors/agents in over 23 countries in key locations around the world.

PROLONG
freshness and extend shelf-life

EXTEND
your market reach

REDUCE
supply chain waste

ENHANCE
consumer experience

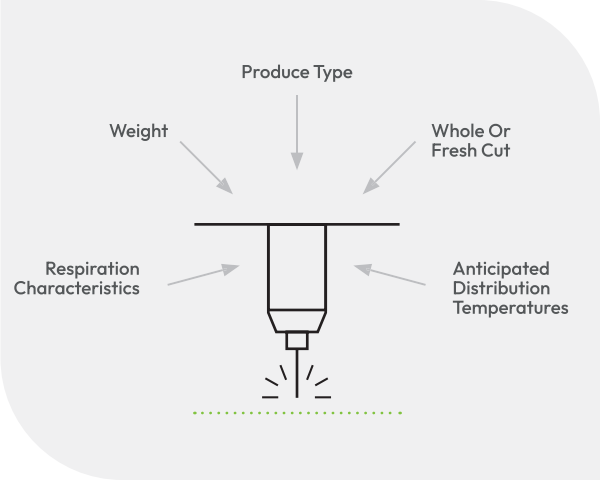
MODIFIED ATMOSPHERE PACKAGING

Actively Slows Aging And Ripening Processes And Suppresses Microbial Decay

Maintain Quality And Freshness

StePacPPC's packaging solutions preserve freshness through the combined effect of Modified Atmosphere (MA), Modified Humidity (MH) and condensation control, which effectively slows down the respiration of fresh produce, inhibits the production and action of ethylene, suppresses microbial decay and minimizes weight loss and shriveling, thereby preserving quality, extending shelf life and reducing waste in the fresh produce supply chain.

Precision Laser Perforation

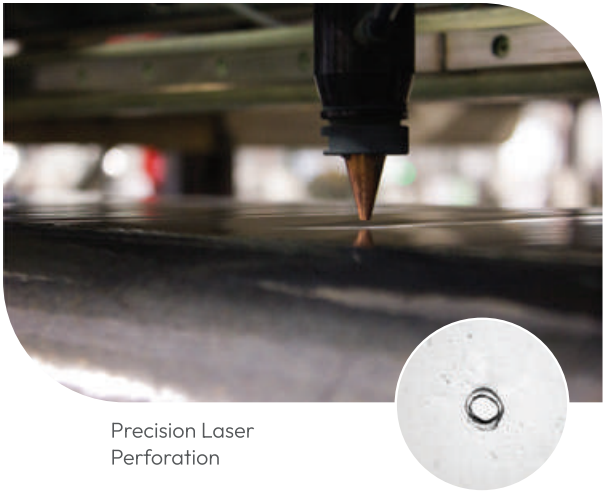


Precision Design

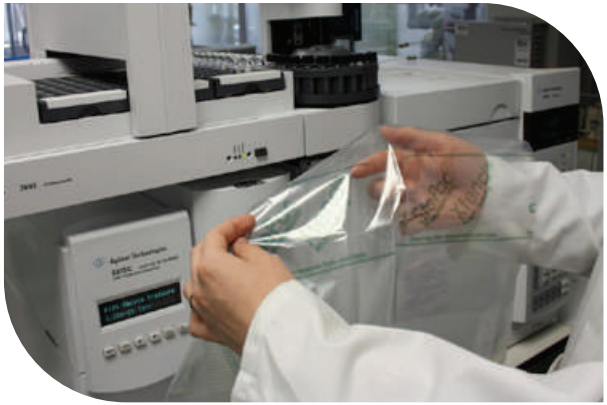
Every Modified Atmosphere Package is meticulously customized taking into consideration the respiration needs and unique characteristics of each fresh produce item. StePacPPC's specialists use proprietary formulae and knowhow with proven results. We select the most suitable film from a broad portfolio of film structures with variable water vapor transmission rates, excellent antifog and other properties. We then regulate the film permeability by laser perforation to achieve the optimal combination of O_2 and CO_2 concentrations for shelf life extension of the specific produce under the prevailing supply chain conditions.

Quality Standards

All our packaging products comply with FDA and European Directives and as such are suitable for direct contact with whole and processed fruits and vegetables. All products are manufactured in compliance with BRC IOP, HACCP, ISO9001, ISO14001 and ISO45001. And REDcert[2] accreditation to incorporate chemically recycled content.



Precision Laser Perforation



Broad range of different film structures

Optimal Balance

- ✓ Elevated CO_2 concentrations
- ✓ Low O_2 concentrations
- ✓ Humidity & condensation control

SUSTAINABLE PACKAGING

MAP With A Positive Environmental Impact

Balancing Plastic Packaging and Reducing Food Waste

Although society is calling for a reduction in its use, we should not forget that functional plastic such as modified atmosphere packaging plays an integral role in preserving quality and reducing food waste. The key is making sure that it is only used when it is really needed, that it is kept as lean as possible and that wherever possible, it can be mechanically or chemically recycled to support a circular economy.

At our postharvest and polymer laboratory the StePacPPC R&D team is continuously working to develop the next generation of packaging solutions for shelf life extension of fresh produce to meet market trends and customer requirements, paying the greatest attention to environmental stewardship.

StePacPPC's Circular™ Product Line

A family of packaging solutions that supports a circular economy and includes fully recyclable solutions, packaging that contains chemically recycled content, and compostable solutions.

All the films are printable and are available in a range of packaging formats, as detailed below.

Xgo™ CIRCULAR™

Xflow™ CIRCULAR™

Xtend® CIRCULAR™

StePacPPC's Four Pillared Sustainable Strategy For Fresh Produce Packaging

The company's four-tiered sustainability strategy is designed to reduce excessive plastic use while driving more responsible packaging, supporting the transition from a linear toward a circular economy. The strategy addresses key areas of manufacturing, use, and recycling.

Keep packaging as lean as possible

Only when packaging protects the produce and has a climate positive effect

Chemical recycling to complement mechanical recycling

Mechanically recyclable Packaging where possible

BULK PACKAGING SOLUTIONS

Xtend®

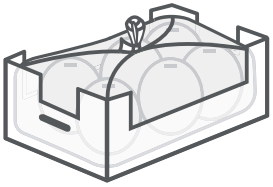
Carton liners, bin liners and pallet shrouds for long term storage & shipment

Whether you are looking to store your produce for longer and supply upon demand or ship to distant destinations, Xtend® Modified Atmosphere (MA) / Modified Humidity (MH) packaging could be the solution for you!

Xtend® MA/MH bulk packaging solutions are available for over 60 different fruits, vegetables and herbs in a range of sizes and formats (e.g. carton liner, bin liners and pallet shrouds).

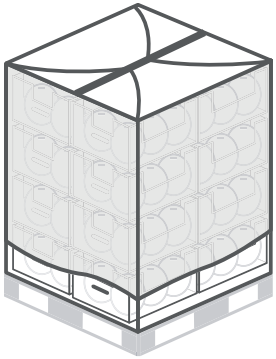
Added value

- ✔ Shelf-life extension
- ✔ Long storage and transportation
- ✔ Enhanced quality
- ✔ Reduces waste



Carton liners

Bin liners



Pallet shrouds

Fully recyclable PE based bags, and bags with 30% advanced recycled content are available!

Xflow™

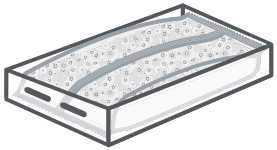
Roll-stock films for automated packing of bulk fresh produce

Series of roll stock film for automated packing of bulk fresh produce in high throughput horizontal form, fill and seal (HFFS; Flow-pack) and vertical form, fill and seal (VFFS) machines.

Xflow™ meets the needs for automation and leaner film specifications by saving up to 40% in use of plastic film in comparison to the preformed bulk bag variant.

Added value

- Shelf life extension
- Long storage and transportation
- Enhanced quality
- Reduces waste
- Increases operational efficiency
- Leaner packaging
- Improves airflow



Bulk flow-pack films

Films with 30% advanced recycled content are available!

RETAIL PACKAGING SOLUTIONS

All Xgo™ products contain excellent anti-fog properties and can be customized to provide optimal modified atmosphere conditions for prevailing temperature-time profiles.

Xgo™

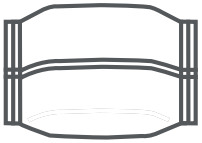
Roll-stock films for automated packing in retail packaging formats

Series of roll stock film for automated packing of fresh produce in retail packaging using high throughput horizontal form, fill and seal (HFFS, flow-pack) and vertical form, fill and seal (VFFS) machines. Suitable for produce items such as whole and minimally processed vegetables.

Hermetically sealed packaging reduces risk of cross-contamination and increases food safety.

Added value

- ✔ Supports high-speed automated packing
- ✔ Increases operational efficiency vs. manual packing
- ✔ Shelf life extension and waste reduction
- ✔ Enhances food safety and quality
- ✔ Enhances consumer experience
- ✔ May facilitate packing at source in the final, branded retail packaging



Flow-pack films

Films with 30% advanced recycled content are available!

Xgo™

Lidding film (top-seal) automated packing in retail packaging formats

Lean easy peel and resealable film structures designed to be sealed onto trays or containers housing produce items such as summer fruits, freshly cut fruits and vegetables and more for on-the-go convenience.

Reduces labor costs verses manual packing processes and supports high-speed automated packing.

Represents 25-30% reduction in plastic versus clamshells with added value of shelf life extension.

Added value

- ✓ Supports high-speed automated packing
- ✓ Increases operational efficiency vs. manual packing
- ✓ Shelf life extension and waste reduction
- ✓ Enhances food safety and quality
- ✓ Enhances consumer experience
- ✓ May facilitate packing at source in the final, branded retail packaging

Lidding films

Fully recyclable PET film is available!

RETAIL PACKAGING SOLUTIONS

Xgo™

Stand-up pouches for eye-catching retail packaging
Features a bottom gusset for upright presentation and optional zipper for a convenient resealable closure.

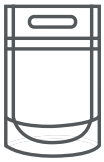
Cleverly engineered to provide extended shelf life in a convenient, attractive Grab-N-Go packaging format.

The product line features a groundbreaking, patent-pending solution: the PAZ Stand-up Pouch. This innovative packaging controls and releases excess moisture, making it ideal for moisture-sensitive items such as cucumbers and green beans. The pouch effectively preserves product quality and freshness by combining modified atmosphere technology with moisture control.

Multi-compartment pouches are available that enable bundling of separate produce items into value-added kits, and are ideal for large retail stores.

Added value

- Elegant design
- Advanced moisture control
- Shelf life extension and waste reduction
- Enhances food safety and quality
- Enhances consumer experience



Stand-up pouches

Multi-compartment pouches

Fully recyclable PE based pouches available!

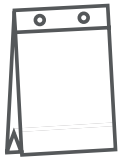
Xgo™

Preformed Bags for manual retail packing

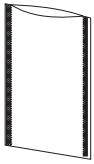
Bags for manually packing at source for shipment to both local and distant markets. Reduces dehydration, weight loss and quality deterioration during storage, transportation and subsequent display on supermarket shelves.

Added value

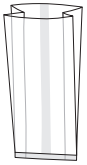
- ✔ Shelf life extension and waste reduction
- ✔ Enhances food safety and quality
- ✔ Enhances consumer experience
- ✔ May facilitate packing at source in the final, branded retail packaging



Wicketed Bags

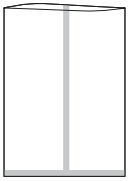


Hd Weld Flat Bags

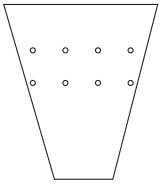


Crimp Seal Gusseted Bags

Quad Seal Bags



Back Weld Flat Bags



Conical Sleeves

Fully recyclable PE based bags, and bags with 30% advanced recycled content are available!

PROUD PARTNERS OF WINDHAM PACKAGING

WINDHAM PACKAGING

StePacPPC is a proud partner of Windham Packaging on the development and implementation of packaging solutions for a wide variety of produce items and packaging formats.

The partnership with Windham brings together over 50 years combined expertise in postharvest science, polymer and packaging design supported by multiple patents that help us deliver cutting edge solutions and together, positions us as the leaders in modified atmosphere packaging for shelf-life extension of fresh produce.

Examples of MAP solutions developed together by Windham Packaging and StePacPPC:

Blue Lake Beans
(left) Competitor hot needle perforation
(right) Windham StePacPPC MAP

7 days @4.5°C (40°F) + 7 days @8°C (46°F)

Broccoli Florets after 18 days
(left) Competitor bag with high O_2 flow rate
(right) Windham StePacPPC MAP

2 lb Cauliflower Florets after 19 days
(left) Competitor bag
(right) Windham StePacPPC MAP

Packaging Solutions For
FRESH FRUITS

Product		Achievable Cold Storage / Shipment		Achievable Shelf Life	
		Days	Temperature	Days	Temperature
	Apple	60	0°C (32°F)	7	20°C (68°F)
	Apricot	30	0°C (32°F)	4	10°C (50°F)
	Banana (Green) Pre-ripening + ripening in sealed bags	35 Pre-ripening	13°C (55°F)	7 Post ripening	20°C (68°F)
	Banana (Yellow) Post-ripened	contact us for ripen in the bag retail solution			
	Blackberry	21	0°C (32°F)	4	10°C (50°F)
	Blueberry	45	0°C (32°F)	4	10°C (50°F)
	Cherry	60	0°C (32°F)	4	10°C (50°F)
	Grape	27	1°C (34°F)	4	10°C (50°F)
	Kiwi	5.5 Months	0°C (32°F)	7	20°C (68°F)
	Lime	28	10°C (50°F)	3	20°C (68°F)

Product		Achievable Cold Storage / Shipment		Achievable Shelf Life	
		Days	Temperature	Days	Temperature
	Litchi/ Lychee	20	5°C (41°F)	3	20°C (68°F)
	Longan	20	5°C (41°F)	3	20°C (68°F)
	Mango	21	10°C (50°F)	5	20°C (68°F)
	Melon (Cantaloupe)	25	3°C (37°F)	5	20°C (68°F)
	Melon (Charantais)	25	9°C (48°F)	3	20°C (68°F)
	Melon (Galia)	25	7°C (45°F)	3	20°C (68°F)
	Melon (Honeydew)	25	10°C (50°F)	3	20°C (68°F)
	Nectarine	30	0°C (32°F)	3	20°C (68°F)
	Passion fruit	28	8°C (46°F)	3	20°C (68°F)
	Peach	30	0°C (32°F)	3	20°C (68°F)
	Pear	91	0°C (32°F)	5	20°C (68°F)
	Persimmon (Triumph)	60	-1°C (30°F)	5	20°C (68°F)

Product		Achievable Cold Storage / Shipment		Achievable Shelf Life	
		Days	Temperature	Days	Temperature
	Pineapple	28	8°C (46°F)	7	20°C (68°F)
	Pitaya (Dragon fruit)	21	10°C (50°F)	4	10°C (50°F)
	Plum	60	0°C (32°F)	3	20°C (68°F)
	Pomegranate Shipment	60	7°C (45°F)	5	20°C (68°F)
	Pomegranate Storage	90	7°C (45°F)	5	20°C (68°F)
	Pomegranate arils	14	1-4°C (32-39°F)		
	Raspberry	14	0°C (32°F)	4	10°C (50°F)
	Rambutan	14	10°C (50°F)	3	20°C (68°F)
	Red Currant	18	0°C (32°F)	4	10°C (50°F)
	Strawberry	14	0°C (32°F)	4	10°C (50°F)
	Watermelon (Baby)	25	7°C (45°F)	7	20°C (68°F)

Packaging Solutions For

FRESH VEGETABLES

Product		Achievable Cold Storage / Shipment		Achievable Shelf Life	
		Days	Temperature	Days	Temperature
	Asparagus (Green)	28	1°C (34°F)	4	10°C (50°F)
	Asparagus (White)	40	1°C (34°F)	4	10°C (50°F)
	Avocado (Hass)	contact us for ripen in the bag retail solution			
	Beans	14	6°C (43°F)	4	10°C (50°F)
	Broccoli	28	0°C (32°F)	4	10°C (50°F)
	Brussels sprouts	40	0°C (32°F)	4	10°C (50°F)
	Cabbage	21	0°C (32°F)	4	10°C (50°F)
	Cauliflower	25	0°C (32°F)	4	10°C (50°F)
	Chili pepper	21	8°C (46°F)	3	20°C (68°F)
	Cucumber	18	10°C (50°F)	3	20°C (68°F)

Product		Achievable Cold Storage / Shipment		Achievable Shelf Life	
		Days	Temperature	Days	Temperature
	Eggplant (Aubergine)	22	11°C (52°F)	3	20°C (68°F)
	Green onion	21	1°C (34°F)	4	10°C (50°F)
	Leek	28	0°C (32°F)	4	10°C (50°F)
	Lettuce	21	0°C (32°F)	4	10°C (50°F)
	Mushroom	Contact us for more details			
	Okra	15	7°C (45°F)	3	20°C (68°F)
	Pepper	28	8°C (46°F)	3	20°C (68°F)
	Radish	21	1°C (34°F)	3	20°C (68°F)
	Snow pea / Sugar snap pea	42	0°C (32°F)	4	10°C (50°F)
	Squash / Zucchini	21	8°C (46°F)	3	20°C (68°F)
	Sweet Corn	21	0°C (32°F)	4	10°C (50°F)
	Tomato / Cherry tomato	14	10°C (50°F)	3	20°C (68°F)

Packaging Solutions For

FRESH CUT VEGETABLES

Product		Achievable Cold Storage	
		Days	Temp.
	Beets (shredded)	9-10	7°C (45°F)
	Broccoli (florets)	>14	2°C (36°F)
	Cabbage (chopped)	9-10	7°C (45°F)
	Carrot (shredded)	9-10	7°C (45°F)
	Cauliflower (florets)	>14	2°C (36°F)
	Celery (sticks)	>10	7°C (45°F)
	Chicory (leaves)	>10	7°C (45°F)
	Escarole	~14	7°C (45°F)
	Fennel	9-10	7°C (45°F)
	Green Bunched Onions (shredded)	~14	7°C (45°F)

Product		Achievable Cold Storage	
		Days	Temp.
	Kale	10	7°C (45°F)
	Lettuce (Curly)	9-10	7°C (45°F)
	Lettuce (Iceberg)	9-10	7°C (45°F)
	Lettuce (Lisa Aldace)	9-10	7°C (45°F)
	Lettuce (Red Leafy)	9-10	7°C (45°F)
	Radicchio (leaves)	9-10	7°C (45°F)
	Spinach	~14	7°C (45°F)
	Swiss chard	>10	7°C (45°F)
	Watercress	9-10	7°C (45°F)

Packaging Solutions For
CULINARY HERBS

Product		Achievable Cold Storage	
		Days	Temp.
	Basil	7-10	10-12°C (50-54°F)
	Chives	10-20	0°C (32°F)
	Coriander	10-20	0°C (32°F)
	Dill	10-20	0°C (32°F)
	Mint	10-20	0°C (32°F)
	Parsley	10-20	0°C (32°F)
	Roccola	10-20	0°C (32°F)
	Rosemary	10-20	0°C (32°F)
	Sage	10-20	0°C (32°F)
	Thyme	10-20	0°C (32°F)

Packaging Solutions For
ORIENTAL HERBS

Product / Common Name		Achievable Cold Storage	
		Days	Temp.
	Gai Lan Chinese broccoli	19	0-1°C (32-34°F)
	Song Hua Choi Chinese cauliflower	31	6°C (43°F)
	Celtuce / Wo Ju / Wo Sun Stem lettuce	21	2°C (36°F)
	Yu choy Miew Choy sum / Chinese cabbage	21	4-5°C (39-41°F)

Disclaimer

Since growing, harvesting, storing and shipping conditions vary widely among growers, regions and cultivars, StePacPPC expressly disclaims any responsibility for the integrity and quality of produce and/or any other contents placed in StePacPPC packages, or for damage thereto.

R&D CAPABILITIES

- 4 Postharvest scientists, 2 Polymer engineers
- State of the art postharvest lab (Israel): 9 cold storage chambers
- Range of equipment for postharvest and packaging analysis
- Microbiology lab
- Additional postharvest lab in Brazil
- Automated packing lab (Israel)
  - 3-layer laboratory extruder
  - Flow pack machinery
  - Lidding film machinery
  - Analytical equipment

COLD STORAGE CHAMBERS

Customers Can Benefit From These Capabilities For New Product Development, Product Simulation, Testing & Benchmarking.

MICROBIOLOGY LAB

POST-HARVEST EQUIPMENT

3-LAYER EXTRUDER

FLOW PACK MACHINERY

WHY StePacPPC

Materials Performance

- ✔ Unique films with variable water vapor transmission rates (WVTR).
- ✔ Films are designed to provide optimal shelf life extensions properties based on the principles of Modified Atmosphere (MA) coupled with Modified Humidity (MH).
- ✔ StePacPPC's manufacturing IP and know-how allow extrusion and production of complex structures and their subsequent conversion into different packaging formats.

Applications Knowledge

- ✔ Experts in plant physiology and pathology and the interaction with packaging design.
- ✔ Customized solutions: Close to 25 different MA/MH film structures that allow us to provide tailor-made solutions for more than 60 different produce types in different formats.
- ✔ 30 years experience in doing this!

Service

- ✔ Holistic approach supported by a wealth of postharvest knowledge and understanding of the prerequisites for successful use of Modified Atmosphere Packaging.
- ✔ Pragmatic solution providers.

StePacPPC offers the broadest range of packaging formats and solutions for shelf life extension of fresh produce in the market, serving customers worldwide.

Our presence is felt across the globe as we lead the way in revolutionizing the fresh produce industry with innovative and dependable packaging solutions.

Your Number One Choice For Shelf-Life Extension Packaging

CONTACT US

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