

Horticulture Product Guide



Premium Greenhouse and High Tunnel Solutions from the Leader in Horticulture Polyethylene Film Products.

A History of Advanced Technology

Advanced Technology

Pioneers in the North American polyethylene industry: we research design, and manufacture the highest quality greenhouse and high tunnel polyethylene film solutions noted for their innovative technology, durability, performance and value. Our next generation 7 Layer SmartStructure technology is testament to that legacy of excellence in innovation.

A Global Focus

In 2016, our parent company, British Polythene Industries PLC (bpi), was acquired by the RPC Group, a global design and engineering company specialising in polymer conversion with centres of excellence worldwide. Today, as RPC bpi horticulture, we leverage both BPI and RPC's technical expertise and global reach with respect to product development, quality standards, and market penetration. Our high performance product portfolio represents the best in class horticulture films, available through a global distribution network.

Outstanding Customer Service

Peace of mind - you need it, we provide it. When you place your trust in a bpi horticulture solution, you can do so with the confidence that our films are backed by the strongest non-prorated warranty in the industry. Product replacement warranties against defects allows you to concentrate on your growing business, confident that your choice of film won't expose you to extra film purchase costs in case of a problem. At bpi horticulture, there's no such thing as "after hours." Our customer service team and extensive field staff are available at a moment's notice to help when you need it.

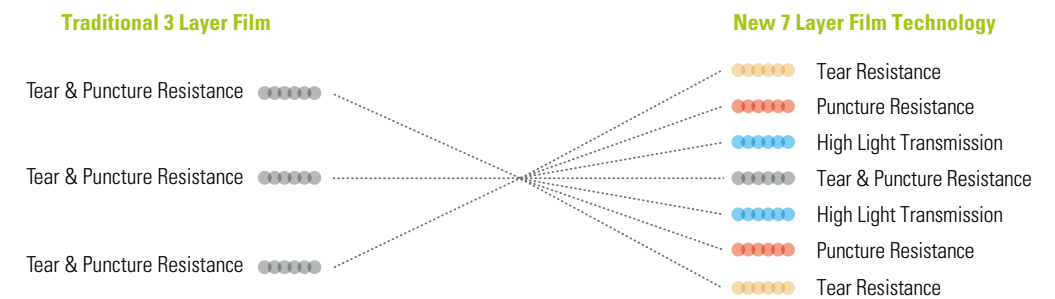


Sustainability Matters

As a leading manufacturer and supplier of polyethylene film and related products, we are committed to sustainability and environmental improvement in all areas of our operations. We strive to meet our environmental obligations in our manufacturing, energy consumption, and new product development processes and workplace practices in a sustainable manner.



7 Layer Advantage: Beyond The Layers



3 Layer vs 7 Layer 4 Year Greenhouse Film

Blended Layers = Compromise.

In a traditional three layer greenhouse film, all of the characteristics of the film are blended together in three layers. From the outer to the inner layers of the film, the layers are a blend of polymers designed to provide strength and light transmittance. Blended layers result in a trade-off between benefits. Easy to process polymers that are not very tough are blended with tougher polymers that are harder to process, resulting in compromised characteristics such as reduced light transmission, tear resistance, or puncture resistance.



Individual Layers = Optimal Performance.

With bpi horticulture 7 Layer SmartStructure® Technology, each layer of polymer is designed to provide the full benefit of its characteristics. 7 layers allows each polymer to be added in purity, or un-blended, providing dedicated layers for tear resistance, puncture resistance, and light transmission. One polymer is not blended with another. They do not offset one another's beneficial characteristics: leading to superior light transmission, as well as tear and puncture resistance.

7 layers of polymers are precisely extruded into a technologically advanced die and the film is blown into seamless high strength, premium tubes to be processed into greenhouse covers and high tunnel films of various sizes.

4 Year Clear & White Greenhouse Covers

6 Mil / 4 Year / Superior Strength

The Durability and Toughness You Need

Super 4™ is a super clear, super tough, longlife product that provides the best value in a 6-mil, 4-year greenhouse film. Super 4™ is also available with 55% white opacity in selected sizes.

Benefits

- Outstanding light transmission, haze, and clarity ratings help optimize yield in greenhouse applications.
- A unique manufacturing process and advanced resin technology provide bpi horticulture's films with superior tear strength.
- High strength at folds reduces the likelihood of punctures and tears in critical areas.
- Advanced UV stabilizers maximize physical properties for the rated life of film and help protect film from chemical damage.
- Bee compatibility feature allows more of the UV spectrum to pass through the film, making it easier for bees to navigate and achieve more efficient pollination than with mechanical means.

Performance Guarantee

Super 4™ is guaranteed to withstand 48 months/4 years of UV exposure under normal circumstances.



Opacity Added Properties	Film Life (years)	Gauge (mil)	Campaigned Widths	Clarity (%)	Haze (%)	Light Transmission (%)	Thermicity (%)
Clear	4	6	Sheets: 10, 12, 14, 16, 20, 24, 28, 32, 36, 40, 42, 48, 50 Tubes: 5, 6, 7, 8, 10, 12, 14, 16, 18, 20, 21, 24, 25	80	23	91.5	55
55%	4	6	Sheets: 24, 32, 40, 48 Tubes: 12, 16, 20, 24	32	100	45	~55
<ul style="list-style-type: none"> ✓ Quality Assurance Tracking System ✓ 100% FDA Compliant ✓ Non-Prorated Warranty 							





4 Year Thermal Diffused Film

6 Mil / 4 Year / Thermal Diffused Film

Durability, Energy Savings, Plus Condensation Control

Thermax™ combines outstanding thermal qualities and exceptional condensation control properties in one revolutionary, diffused greenhouse film. The modified outer layer of the film safeguards condensation control integrity by providing directionality.

Benefits

- Outstanding thermal properties keep the heat in by reducing radiant heat loss. Heaters cycle less often and consume less energy to maintain a set temperature; a combination that offers potential energy savings of 15–20%.
- Directional condensation control ensures the additive migrates to the surface facing the crop. This not only controls drips, but maintains light transmission and enhances thermal benefit.
- Diffused light reaches plants from many different angles while par light transmission remains the same, optimizing light distribution in all parts of the greenhouse.
- Diffusion helps protect plants from sunburn. Light is even, not intense.
- High strength at folds means higher resistance to punctures and tears.
- Increased tear and stiffness provide superior strength so Thermax™ handles years of snow and wind loads.

- Increased film stiffness makes the film easier to install in greenhouse applications.
- Bee compatibility feature allows more of the UV spectrum to pass through the film, making it easier for bees to navigate and achieve more efficient pollination than with mechanical means.

Research shows that a properly inflated double poly-covered greenhouse can save the grower over 40% in heating costs compared to a single layer of glazing. What is less well known is that using a thermal film as one of the layers can result in an additional 15–20% heating cost saving.

During the day, the greenhouse structure, plants, and soil absorb energy due to both visible and infrared light from the sun. At night, heat is released in the form of long-wavelength infrared radiation (IR) to the cooler outside air. Thermal films transmit less IR energy as radiant heat.

Thermicity is a measure of the transmission of IR through a film. The lower the thermicity, the lower the transmission of IR and the lower the heat loss. Incorporating an effective condensation control additive into Thermax™ causes condensing water to spread out into a uniform sheet on the interior surface of the film. This thin sheet of water is also absorbed in the long-wavelength IR region, meaning it acts as an additional barrier to radiant heat, i.e. enhances thermicity.

	Gauge (mil)	Campaigned Widths	Clarity (%)	Haze (%)	Light Transmission (%)	Thermicity (%)
	6	Sheets: 10, 12, 16, 20, 24, 28, 32, 36, 40, 42, 48, 50 Tubes: 5, 6, 8, 10, 12, 14, 16, 18, 20, 21, 24, 25	74	26	91.3	26
Test method	BPI Method		ASTM D 1003	ASTM D 1003	ASTM D 1003	BPI Method



Performance Guarantee

Thermax™ is guaranteed to withstand 4 years of UV exposure under normal circumstances.



4 Year Diffused Greenhouse Film

4 Year / 6 Mil / Diffused Greenhouse Film
3 Year / 6 Mil / Diffused High Tunnel Film

The Results You Want

LUMINANCE[®] from bpi horticulture has been specially engineered to give you the results you need from a highly diffused greenhouse and high tunnel film.

Benefits

- Lowers greenhouse temperature by as much as 9°F when compared to standard film.
- Produces higher-yielding plants with stronger than normal root systems.
- Less demand for watering.
- Inhibits fungus spore development for healthier plants.
- Inhibits insect propagation.
- Provides comfortable working conditions during harvest season.
- Prolongs the growing season.
- Allows for an earlier harvest—up to three weeks earlier harvests have been recorded.

- Higher crop yields and higher first quality crop yields—there have been noted increases of 30%–40% in total crop yields, with a higher percentage in first quality crop yield of up to 85% for some crops.
- Guarantees harvesting days—LUMINANCE[®] provides a cover from the weather to ensure rain won't delay harvesting.
- Diffused light reaches plants from many different angles, helping prevent the plants from getting scorched.
- Par light transmission remains the same.
- Beneficial for raspberries and blackberries.



Performance Guarantee

Luminance[®] is guaranteed to withstand 4 years of UV exposure in a greenhouse application and 3 years in a high tunnel application, under normal circumstances.

3 Year Diffused High Tunnel Film

Opacity Added Properties	Film Life (years)	Gauge (mil)	Campaigned Widths	Clarity (%)	Haze (%)	Light Transmission (%)	Thermicity (%)
IR	4*	6	24, 32, 36, 41	26	93	90	15
			24, 32, 36, 41				
IR	4	6	Sheets: 24, 32, 40, 48	26	93	90	15
			Tubes: 12, 16, 20, 24				
✓	Quality Assurance Tracking System						
✓	100% FDA Compliant						
✓	Non-Prorated Warranty						

*As inner layer with inflated conventional greenhouse construction

IDEAL FOR

- Tomatoes
- Herbs
- Flowers
- Nursery Stock
- Strawberries
- Potted Plants
- Blackberries
- Chillis
- Redcurrants
- Eggplants (Aubergines)
- Blackcurrants
- Raspberries
- Peppers
- High Value Salad Crops
- Cherries
- High Value Vegetable Crops
- Plums
- Zucchini (Courgette)
- Melons



Black-White Panda™ & Premium® Film

Durability and Control

Panda™ 4 mil and Premium® 5 mil is a highly reflective and opaque white/black film that can be used for either bench/ground cover or as a reflective blackout curtain for photoperiod control.

Benefits

- Brilliant white layer ensures maximum light reflectivity to aid in vegetable crop production.
- Provides maximum control when used as a blackout curtain for your crops.
- Reflects heat and cools better than shade cloth.
- Designed specifically to withstand the wear and tear of either foot traffic or retractable curtain systems, so that crop management control is not reduced in these higher-stress applications.
- High strength at folds means higher resistance to punctures and tears. In any film, weaknesses can occur where the polymer strands are bent at a fold. Increased fold strength minimizes performance issues at these key areas.

Performance Guarantee

Panda™ and Premium® are UV-stabilized to ensure durability and are guaranteed to withstand 1 year of UV exposure under normal circumstances.





Opacity Added Properties	Film Life (years)	Gauge (mil)	Campaigned Widths	Clarity (%)	Haze (%)	Light Transmission (%)	Thermicity (%)
White/Black Panda™	1	4	10,20	NA	NA	0	NA
White/Black Premium®	1	5	32, 40, 50	NA	NA	0	NA
<ul style="list-style-type: none"> ✓ Quality Assurance Tracking System ✓ 100% FDA Compliant ✓ Non-Prorated Warranty 							





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Disclaimer of Liability

We strive to ensure that the information, recommendations and instructions on the use of our products is correct and offers the best guidance which we, or third party experts whom we have consulted, can provide to assist farmers and growers in deciding which products are suitable for your needs and achieving the best results. However, a Product Guide is necessarily of a general nature and cannot be tailored for the specific conditions and requirements which each farmer or grower will have. Advice on the suitability of our products and guidance on their use for your requirements should be obtained by contacting edmonton@rpc-bpi.com.

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100% recyclable 100% FDA compliant