A.A. POLITIV (1999) Ltd.

Manufacture & Marketing Polyethylene for Agriculture

www.politiv.co.il







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POLY-AG. corp. U.S.A
www.poly-ag.com

POLY-AG. Berries, S.A. de C.V. MEXICO
www.poly-ag.com

POLITIV (1999) Ltd. INDIA
www.politiv.in

GREENHOUSE TECHNOLOGIES South Africa
www.ghtech.co.za

Kibbutz Einat 48805,
P.O.B 3, Israel

Phone +972-3-9016060
Fax +972-3-9016040

www.politiv.co.il

COMPANY PROFILE

A. A. Politiv (1999) Ltd was established in 1985. The company has been in private ownership since its establishment and is strictly managed by its owners, with high quality strict self-inspection and high aspirations, priding itself on quality, service and personal attention to its clients. For these reasons, the company managed to become Israel's, and indeed one of the world's, leading manufacturer of agricultural cloths.

The company's specialty – Since its establishment, Politiv has been distinguished by personal, reliable and dedicated service and short delivery times, while maintaining very high quality service and suitability of products to the client.

The company's products – Politiv specializes in the manufacture of "smart" agricultural polyethylene sheets, and offers a wide range of sheets suited to all clients, according to their demands. In addition, they market additional complementary products, such as insect nets, raffia yarn, and nonwoven fabric.

Production capacity – Politiv have a production capacity of around 35 thousand tons per year, of which 70% is marketed for export to more than 50 countries round the world.

Constant improvement – In order to improve the quality of the product and the cut delivery times, Politiv invests in the acquisition and exchange of modern and state of the art production lines, with high outputs, computerized entry systems, automatically control to prevent human error and to ensure repeatability in the composition of the materials between different production lots.

Raw materials and additives – The Company is particular to use the highest quality raw materials and additives to produce its sheets. They will also develop new products with innovative materials to improve the properties and durability of the sheets.

Company employees – It is important to Politiv to foster cooperation and harmony between its employees, and to enable all employees to take an active part in the process of improving the processes and streamlining of the company. In addition, they are particular to maintain a high level of knowledge through training in different fields, with the intention of improving the standards of service and of the product quality.

The production team is proficient and has many years' experience in the field of plastics.

Standards – All sheets are tested according to Israeli standards (Israeli standard 821) as well as international standards (ASTM, ISO) before being shipped to the client. These tests are conducted 24 hours a day in a state of the art laboratory by highly educated and skilled personnel.

Quality assurance – Since 1998, the company has undertaken a quality management system and been certified to ISO-9001:2008 standard.

Environment – Politiv care about the environment, and are certified to ISO-14001:2004 standard. Politiv initiated environmental legislation regarding recycling biodegradable sheets in conjunction with the Ministry of Agriculture and the Environment.

Research and Development – Politiv develop state of the art smart sheets in close collaboration with agricultural leaders while tailoring the product to client requirements.

Politiv's marketing strategy – In order to spread further through the world, Politiv has established subsidiary companies in dominant and growing countries, such as USA, India, South Africa and Mexico.

In addition, Politiv has set up distribution warehouses in many countries to improve the availability of its products to the client. These warehouses are located in USA, India, Africa, Mexico, Spain, Uruguay, Guatemala, Ecuador, Egypt, Macedonia, Brazil and Australia.

GREENHOUSE COVERING FILMS

The main purpose of the greenhouse coverings is to create a controlled internal environment regardless of the external environment. Better environmental control leads to better crop yield and quality.

Basic Properties of greenhouse films

I- **High mechanical properties:** The film's mechanical properties depend on the polymers and production technique used. At Politiv, we only use top quality materials supplied by the leading producers of polymers and additives, and fully computerized extruders. Our films meet international ISO and ASTM, and Israeli 821 standards.

II- **UV Stability (film durability):** Non-stabilized polyethylene films will fail after 4-6 months, depending on the film thickness. UV stabilizers should be added to reach the desired film durability. The type and percentage of UV stabilizers to add depend on the desired film life, area (total radiation), film thickness, greenhouse structure, and agrochemical usage.

III- **Light transmission at the visible range (400-700nm wavelength):** The visible light comes into the greenhouse and drives the photosynthetic process. The intensity of the photosynthetic active radiation (PAR) directly influences growth and development of green plants.

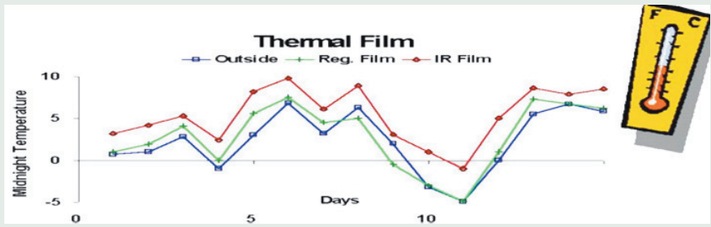
Other Properties (optional):

a. **Light diffusion:** Direct sunlight causes shadows and sun burns. Diffuse film scatters the light which allows it to be received by the plant from all directions, which increases the photosynthesis efficiency.

Film without diffusion

Diffused light

b. **Thermal additives (IR):** At night when the outside temperature decreases, the temperature of the air and soil in the greenhouse also drops. To prevent temperature loss, special thermic additives are incorporated into the film.



c. **Anti-fog/Anti-drip:** Hot air contains more moisture than cold air, and due to the decrease of the temperature in the greenhouse at night, water vapor in the air condenses to form small droplets on the film. These droplets reduce light transmission and can cause fungal diseases. The anti-drip modifies the film's surface and the water droplets become an invisible layer of water.

d. **Anti- virus:** With anti-virus film, insects are not active inside the greenhouse, so fewer plants are damaged by diseases spread by these insects and fewer chemicals are needed.

e. **Anti-dust:** This important feature ensures maximum light transmission and easy film cleaning.

f. **Anti-mist:** Mist forms in a greenhouse when the temperature drops and the relative humidity reaches saturation, and the greenhouse cover has anti-fog/anti drip function. Incorporating anti-mist with anti-drip will prevent mist formation.

Cat No.	Description	T.L.T	L.D	AF	Therm	AV	S.R
E1528	Clear UVA film	88%	30%	x	x	x	No
E1526	Diffused film	85%	65%	x	x	x	No
E1505	Greenish diffused UVA	83%	60%	x	x	√	2000 ppm
E1751	Diffused UVA anti-virus	85%	60%	x	x	√	No
E1562	Nickel diffused UVA	83%	55%	x	x	x	1500 ppm
E1707	Clear UVA sulfur resistant	88%	35%	x	x	x	2000 ppm
E1710	Clear UVA sulfur resistant	88%	35%	x	x	x	3000 ppm
E1704	Diffused UVA sulfur resistant	85%	60%	x	x	x	2000 ppm
E1848	Diffused UVA sulfur resistant	85%	60%	x	x	x	3000 ppm
E1723	Diffused UVA+ anti-virus	85%	60%	x	x	√	2000 ppm
E1790	Diffused UVA for nectarines	85%	60%	x	x	x	1500 ppm
E1517	Diffused UVA+IR+AF	85%	65%	√	20%	x	NO
E1568	Clear UVA+IR+AF	88%	35%	√	20%	x	NO
E1549	Diffused UVA+IR+AF+AV	85%	65%	√	20%	√	NO
E1766	Clear UVA+IR+AF+AV	88%	35%	√	20%	√	NO
E1716	Diffused UVA+IR+AF+ **anti-mist**	85%	65%	√	20%	x	NO
E1524	Diffused Nickel UVA+IR+AF+AV for roses	83%	65%	√	20%	√	2000 ppm
E1749	Diffused UVA+IR+AF sulfur resistant	85%	65%	√	20%	x	2000 ppm
E1773	Clear UVA+IR+AF sulfur resistant	88%	35%	√	20%	x	2000 ppm
E1748	Diffused UVA+IR+AF+AV sulfur resistant	85%	65%	√	20%	√	2000 ppm
E1784	Clear UVA+IR+AF+AV sulfur resistant	88%	35%	√	20%	√	2000 ppm
E1823	Diffused UVA+IR+AF+ **anti-mist**	85%	65%	√	20%	x	1500ppm
E1540	Clear anti-drip	88%	35%	√	x	x	NO
E1522	Diffused anti-drip	85%	60%	√	x	x	NO
E1744	Clear anti-drip sulfur resistant	88%	35%	√	x	x	2000 ppm
E1757	Diffused anti-drip sulfur resistant	85%	60%	√	x	x	2000 ppm
E1796	Diffused anti-drip+ AV sulfur resistant	85%	60%	√	x	√	2000 ppm
E1769	Diffused anti-drip for nectarines	85%	60%	√	x	x	1500 ppm
E1571	Diffused thermic film	85%	60%	x	20%	x	NO
E1731	Clear thermic film	88%	35%	x	20%	x	NO
E709	Diffused thermic film	85%	60%	x	20%	x	2000 ppm
E1570	Diffused thermic film	85%	60%	x	20%	x	3000 ppm
E1590	Clear thermic film	88%	35%	x	20%	x	2000 ppm
E1743	Clear thermic film	88%	35%	x	20%	x	3000 ppm
E1523	Diffused Nickel thermic film	83%	60%	x	20%	x	2000 ppm
E1836	Reinforced Diffused Polytunnel+IR+ anti-dust	84%	65%	x	30%	x	1000 ppm
E1834	Reinforced Diffused Polytunnel+IR 15% shade	80%	75%	x	30%	x	No
E1835	Milky Reinforced Polytunnel+IR 25% shade	70%	75%	x	30%	x	No
E1839	Clear Reinforced Polytunnel+IR+ anti-dust	90%	305%	x	40%	x	1000 ppm

x- no effect
√- with effect

SPECIALIZED AGRO-FILMS

In addition to their standard agricultural film, Politiv has developed special agro-films. These films were developed based on Politiv's experience and in cooperation with their customers.

I- High Strength Films:

These films are based on new, state-of-the-art polymers. They are 30-40% stronger, and can withstand double the impact than standard films. They were developed to withstand extremely tough climates (hail, strong winds, etc.).

Cat No.	Description	T.L.T	L.D	AF	Therm	AV	S.R
E1832	Diffused reinforced UVA	86%	55%	x	x	x	No
E1850	Clear reinforced UVA	88%	35%	x	x	√	1500 ppm
E1856	Diffused reinforced UVA for nectarines	85%	55%	x	x	x	1500 ppm
E1852	Diffused reinforced UVA+IR+AF	85%	60%	√	20%	x	No
E1853	Clear reinforced UVA+IR+AF	88%	35%	√	20%	x	No
E1854	Diffused reinforced UVA+IR+AF	85%	60%	√	20%	x	2000 ppm
E1855	Clear reinforced UVA+IR+AF	88%	35%	√	20%	x	2000 ppm
E1833	Diffused reinforced Nickel anti-drip	83%	60%	√	20%	x	No
E1851	Diffused reinforced UVA+IR+ anti-virus	85%	60%	x	x	√	2000 ppm
E1837	Clear reinforced UVA+IR+ anti-virus	88%	35%	x	20%	√	1500 ppm
E1846	Diffused reinforced UVA+IR for nectarines	85%	60%	x	x	x	1500 ppm

II- Polyfreeze films:

These films were developed to reduce the air temperatures in the greenhouses during the hot season or during hot days. The films can either contain special additives that block the NIR (which is responsible for heating the air in the greenhouse) or a special grayish pigment that partly reflects visible light.

Cat No.	Description	T.L.T	L.D	AF	Therm	AV	S.R
E1507	Natural polyfreeze	84%	70%	√	20%	x	No
E1508	Nickel polyfreeze	84%	70%	√	20%	x	2000 ppm
E1781	Natural polyfreeze sulfur resistant	84%	70%	√	20%	x	1500 ppm
E1818	Grayish diffused UVA	75%	60%	x	x	x	No
E1840	Grayish diffused polytunnel+IR	75%	60%	x	x	x	1000 ppm

III- Photoselective films:

a. Special pearlescent pigmented films: the pearlescent pigments modify the light coming into the greenhouse.
b. "Smart" red films: the unique red pigment that converts UV radiation to red light. Particularly recommended for red roses.

Cat No.	Description	T.L.T	L.D	AF	Therm	AV	S.R
E1849	Pearlescent stabilizing film	83%	55%	√	x	x	No
E9998	Smart red film	85%	40%	x	x	x	2000 ppm

MULCH FILMS

Mulch film is a cover over the soil, primarily used to protect it against climate effects. The most powerful impact plastic mulch has is its effect on light. Mulch film can alter the heat of the soil it protects; either increasing or decreasing it depending on the film's color. Advantages to the use of mulch film include earlier harvest, reduced evaporation, reduced fertilizer leaching, reduced soil compaction, eliminated root pruning, cleaner vegetable products, better control of weed growth and better insect management.

Mulch types

1. Clear polyethylene mulch films
2. Black mulch film
3. Black/White mulch film
4. Wavelength selective mulch films (silver/black, silver/brown, brown /brown, green/green, black/ yellow, brown/yellow)
5. Biodegradable, oxo-degradable films

Product list

Politiv's mulch films are multi-layer and are available in single or dual color in accordance with the customer's specific requirements.

Cat. No.	Description	Season	Crops type	Soil temp.	Weed control	Insects managements
E1102	Clear mulch	Year round	Vegetables	high		
E1103	Black mulch	Year round	All	low	yes	
E1107	Brown photoselective	Winter-spring	Vegetables	medium	yes	
E1108	Green photoselective	Winter-spring	Peppers, melon	medium	yes	
E1111	Brown/silver	Year round	Melons, strawberries	medium	yes	Aphids, whitefly
E1112	Black/silver	Summer	Melons, strawberries	low	yes	Aphids, whitefly
E1113	Brown/yellow	Year round	Vegetables	medium	yes	Whitefly
E1114	Black/yellow	Summer	Vegetables	low	yes	Whitefly
E1115	Black/white	Summer	All	low	yes	Aphids, whitefly
E1143	Reinforced black/white	Summer	All	low	yes	Aphids, whitefly
E1144	Reinforced black/silver	Summer	Melons, strawberries	low	yes	Aphids, whitefly
E1145	Reinforced black	Year round	All	low	yes	
E1147	Reinforced brown/silver	Year round	Melons, strawberries	medium	yes	Aphids, whitefly
E1148	Brown photoselective	Winter-spring	Vegetables	medium	yes	
E1149	Green photoselective	Winter-spring	Peppers, melon	medium	yes	
E1116	Oxo-degradable film	Year round	Vegetables	high		

Solarization and fumigation

Cat. No.	Description	thicknesses	Notes
E1305	VIF film	30-35 microns	
E1313	Thermic solarization film	30-50 microns	