

## Greenhouse Films

Western Farm Service is pleased to offer product from 3 manufacturers of greenhouse films, resulting in a complete availability of polyethylene film products.



**Tyco Plastics**  
**Agricultural Films**

### ***Products offered by some or all of the above producers:***

**1 year films** – 3mil, 4mil & 5mil. Anti-condensate available. Application: 1 season covering. Typically replaced in the fall for clarity through low-light periods. Different thicknesses used determined by amount of mechanical stress – wind, hail and attachment method.

**3 year films** – 4mil. Anti-condensate available. Application: Where economy and light transmission is desired.

**4 year films** – 6mil. Anti-condensate and energy-saving (Thermal) features also available. Application: Where longevity of film and high performance of additives is desired.

**White Films** – 3mil & 4mil. 1 year & 4 year offered. Various % of shade available. Application: 1 year and overwintering shaded films are used to maintain dormancy of nursery stock in northern latitudes. Multi-year shaded films are used for more permanent installation to reduce light into shade loving crops.

**Overwintering Films** – 3mil, 4mil, 5mil & 6mil. Application: Unheated low light winter protection. High quality, non UV stabilized film designed for one season of protection. Available in clear or white.

**Black/White Reflective Films** – 4mil, 5mil & 6mil. Application: Photoperiod control, ground cover. A covering where light penetration is not desired yet cool temperatures are desired. Reflects light and thus no heat buildup.

**Co-poly Utility Films** – 4mil & 6mil. Application: Economical product for general short term covering usage. Partitions, soil mounds and sanitation. Available in clear & black.

**Nursery Black** – 4mil & 6mil. Application: Photoperiod control.

**Convection Tubing** – Pre-punched in 18", 24", 30" Diameter.

**Less than minimum prepaid shipment orders can be shipped LTL.**

**With enough planning, small orders can be combined with similar orders to be brought into Western Farm Service and delivered from your local branch.**

**Call your Western Farm Service representative to get your order started.**

**Ordering early saves costs and insures a smooth recovering season.**

**Film Life Discussion** - The serviceable life of greenhouse film is based on several factors.

1) Mechanical wear – flapping, rubbing against greenhouse members, tears and punctures will cause premature degradation. 2) Ultraviolet breakdown – Cool, cloudy coastal areas offer less UV bombardment than hot, dry and windy inland areas. Film life will be more or less in duration as a function of location. 3) Chemical attack – Greenhouse chemicals, fertilizers and sulfur as well as external sources of pollution can shorten the life of greenhouse film.

**Warranty Discussion** – Greenhouse films with a rated life expectancy (1 year, 4 year etc.) do come with a written limited warranty. There are a number of conditions (inflation, type of fastening device, exposure to hot surfaces) as to nature of application and maintenance of film that must be satisfied to maintain the warranty. If premature degradation occurs (depending on the manufacturer) the customer can be credited a pro rated amount of the product purchased depending on how long the film was in service. Be advised that greenhouse film manufacturers' warranties do not cover the labor costs associated to reinstall prematurely degraded film. Each roll comes with warranty information.

# COVERINGS

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## Helpful Tips to Ensure Long Life and Durability of Poly

- Avoid dragging the roll when transporting to installation site or rubbing against abrasives during unrolling.
- Inspect all frame work prior to installation to ensure the frame is free of burrs in metal structures and splinters in wood structures.
- Film should be stretched only in a manner to avoid flapping. If installed in warm weather, the film should be left limp so that it allows for contraction in cold weather.
- Stretch film to eliminate specific areas of stress.
- Avoid direct contact of pesticides with film when spraying. Evidence indicates that there is a much greater likelihood of premature film failures if pesticides come in direct contact with greenhouse films.

## Double Poly Houses

- Inflate to a target air pressure of .25 inch of water column pressure – use a manometer to check air-inflation pressure. This will give you a maximum inflation height between layers of 12" to 16".

## Wooden Greenhouse Structures

- Whitewash along slat contact area to reflect light and prevent “hot spots”. Greenhouse film deterioration is accelerated by heat. White washing structures on wooden structures is one of the most effective methods to attain maximum film life.
- Film should be wrapped around the retaining slat twice before nailing every 6".
- Never use petroleum-based products for white washing. All petroleum products act as a catalyst to break down polyethylene products.
- Wood preservatives, in particular copper based products in petroleum, distillates, when in direct contact with polyethylene film will cause rapid breakdown of film. Wood preservatives less likely to cause premature film failure will be Zinc based in a water solution.

(Tips courtesy of AT Plastics)



## First Choice Shading Compound

First Choice Shading Compound is a liquid concentrate that has been developed to assist greenhouse growers in protecting crops from excess solar transmission. It is designed to offer outstanding reflection along with ease of application and removal. The product is offered in two levels of adhesion. This product has been tested and certified not to harm polycarbonate glazing products. Available in 5 gallon pails.



Product Code	Description
89-35690	First Choice Greenhouse Frosting No Binder
89-35681	First Choice Greenhouse Frosting with Binder



## Poly Patch Tape

Poly Patch Tape is the best tape available for repairing polyethylene greenhouse covers. It is made from highly UV stabilized 6 mil polyethylene film with a UV stabilized adhesive. Its bond is so aggressive that it has lasted up to 3 years.

Product Code	Description	Rolls Per Case
89-61160	Poly Patch Tape 4" x 48'	27
89-61600	Poly Patch Tape 5" x 48'	18

## Polyethylene Film Lock

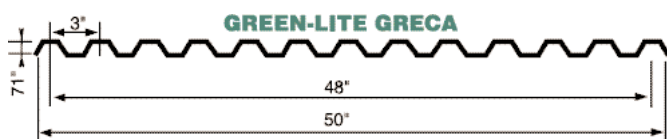
Agralock and Tube Lock available. These film locking devices are approved by film manufacturers to maintain warranties related to film products.



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## Polycarbonate Covering Products and Accessories

### Green-Lite Condensation Controlled Corrugated PC Sheet with UV Protection



### Corrugated PC Sheet

Green-Lite is one of the leading materials of choice for greenhouse roofing, due to its unique combination of characteristics. It is a high quality, lightweight, rigid corrugated polycarbonate sheet, with excellent impact resistance, superior clarity, versatility, and weather resistance.

Green-Lite contains UV inhibitors, which prevent degradation and yellowing of the material, and crops under the sheet are protected from the harmful rays of the sun.

### Condensation Control

All Green-Lite panels are treated with a factory applied condensation control which causes water to spread into a thin sheet rather than form into droplets.

This built-in condensation control eliminates condensation drop formation, while retaining its high level of transparency.



### Verolite Polycarbonate Twinwall Sheeting

Verolite, the perfect glazing choice for any greenhouse covering, translates its many unique features into cost saving benefits.

- Manufactured in North America.
- 10 year warranty.
- Heavy Gauge - Increased strength. Improved hail protection.
- Anti-Fog - prevents condensation build up. Improved light transmission.

- Quick Ship and Cut-to-Size programs.
- Perfect for end and sidewalls.
- Wide flute TwinWall PC has the clarity of acrylic and the strength of polycarbonate.
- Quick Ship and Cut-to-Size! • Better clarity - same strength.
- Contact Western Farm Service for information on prepaid freight for combination orders.

Verolite Availability	SPECIFICATIONS				
	4.5 mm	6 mm	8 mm	10 mm	16 mm
Stock Widths (inches)		48, 72	48, 72		
Standard Width (inches)	48, 72, 80*	48, 72, 80*	48, 72, 80*	48, 72, 80*	48
Spacing between flutes (mm)	7	7	10	10	18
<b>Light Transmission</b>					
Tints: Clear	82%	80%	80%	79%	78%
Bronze	42%	42%	42%	42%	42%
Opal	44%	44%	44%	44%	44%
Grey	42%	42%	42%	42%	42%
<b>Insulation</b>					
R-Factor	1.47	1.55	1.57	1.63	1.83
U-Factor (BTU/hr/ft <sup>2</sup> /°F)	0.68	0.645	0.635	0.615	0.545

\*80 inch by special order

## Insect Screens

### Vector-Virus and No Thrips Insect Screens

U.V. stabilized Insect Screens from Greentek, correctly installed prevent insect penetration, yet provide maximum possible air flow that is essential for optimal crop yields.

All greenhouse openings including intake vents, service doors, etc., should be screened for best results, and double screened doors should be installed.

Screen Selection Criteria				
Insect/Pest To Be Excluded	Insect Size Inch (μ)	Screen Type To Use	Screen Hole Inch (μ)	Performance
Leafminer	0.025 (640 μ)	Vector-Virus	0.0105 x 0.0322 (266 x 818 μ)	100%
Melon Aphid	0.013 (340 μ)	Vector-Virus	0.0105 x 0.0322 (266 x 818 μ)	100%
Whitefly	0.018 (462 μ)	Vector-Virus	0.0105 x 0.0322 (266 x 818 μ)	100%
Western Flower Thrips	0.0075 (192 μ)	No Thrips	0.0059 x 0.0059 (150 x 150 μ)	100%



Insect Screen Specifications	Vector Virus	No Thrips
Construction	50 x 24 mesh	81 x 81 mesh
Opening Size	0.0105 x 0.0322"	0.0059 x 0.0059"
Thread Size	0.24 mm	0.15 mm
Weave	1/1	1/1
Weight	0.33 lbs/yd squared	0.216 lbs/yd squared
Shade Value	20%	33%
Light Transmission	80%	66%
Standard Width	43, 78, 118, 141 inch	39, 78, 133 inch
Custom Widths	Available	Available
Maximum Length	656 feet	328 feet
UV Resistance	Tested to equivalent of 5 years	Tested to equivalent of 5 years

**Caution:** Any screening retrofitted to a greenhouse without other changes will decrease airflow and increase greenhouse temperatures.



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## Woven Shade Cloth

- Woven Shade Cloth is used to limit the amount of light penetration to the crop as well as reducing plant stress due to light or heat
- It can be used in a variety of non field growing situations
- This product is made with UV and heat stabilizers for long field use
- Woven shade cloth can be fabricated in custom sizes for your individual needs
- Standard seamless widths are 6', 10', and 12'
- Edge taping is required to prevent unraveling

Product Code	Description
95-86000	Shade Cloth Woven 30%
95-86001	Shade Cloth Woven 40%
95-86003	Shade Cloth Woven 51%
95-86005	Shade Cloth Woven 63%
95-86007	Shade Cloth Woven 73%
95-86009	Shade Cloth Woven 80%
95-86011	Shade Cloth Woven 95%

Product Code	Fabrication
95-86100	Shade Cloth Tape Edge by Linear Foot
95-86102	Shade Cloth Grommets - Each
95-86103	Shade Cloth Seaming by Linear Foot
95-86104	Shade Cloth Slitting by Linear Foot
95-86105	Shade Cloth Fabrication (Special)



## Shade Rite Knitted Shade Cloth

- Offers crop protection for UV and heat sensitive plants
- Has lockstitch knitted construction which will not fray or ravel
- Lighter weight and easier to install than woven
- Cost effective - No edge taping and minimal sewing required due to knitted lock stitch
- Stock Color is black, also available in green or white
- Aluminet - "Cool Shade" Cloth - available
- Standard widths: 8', 12', 20', 26', 34'



Product Code	Description	
95-85550	Shade Cloth Knitted 30%	
95-85551	Shade Cloth Knitted 40%	
95-85552	Shade Cloth Knitted 50%	
95-85553	Shade Cloth Knitted 60%	
95-85554	Shade Cloth Knitted 70%	
95-85555	Shade Cloth Knitted 80%	
95-85556	Shade Cloth Knitted 90%	
95-86106	Hinged Grommet Fastener	100/Bag