



# POLYGRO 200 PROFESSIONAL GREENHOUSE FILM

## HANDLING, STORAGE, INSTALLATION INSTRUCTIONS AND WARRANTY FORM.

Polygro 200 is a 200 micron thick EVA multilayer greenhouse film manufactured to ISO standards in Europe on the latest extruders using the best current materials and stabilizers for longer life. Some small variations in clarity, colour and gauge is normal and should have no effect on the performance of this product.

### Handling and Storing

When loading, transporting, unloading or storing, do not damage the roll or film. Do not drag the roll as this will damage the film inside. Store all rolls or covers out of direct sunlight to avoid heat buildup and damage to film while folded or on the roll. Storing or standing the rolls on the roll ends will cause damage and holes to the folds.

### Installation

Check all frames and hoops for sharp or rough edges. Smooth or remove sharp edges and where necessary use white Cosio self adhesive Frametape to cover rough areas that could damage the film. Frametape should also be used on upper surfaces of frames and hoops where film will be in direct contact. This will prevent the film from degrading and breaking down on this contact area due to heat buildup against the frame or hoop.

Do not fix film directly on tanned or similarly chemically treated timber as this may cause chemical damage to the film. If the frame is made from treated timber, use Frametape under the film where the film touches the timber. If the frame is metal, ensure that any corrosion is treated and will not damage the film. Use Frametape as above where necessary to protect the film from degradation and abrasion.

Do not install film on windy or excessively hot days. If installed in hot weather, stretched film may shrink back and become too tight in cold weather. Over tensioning will stress the film at fixing points and possibly cause damage to the structure or film cover. Film should be tensioned to avoid loose or flapping film damage in windy conditions and to prevent puddling of water on the surface which will damage the cover. Roof slope should be a minimum of 22 degrees to assist anti-fog treatments to work properly and to avoid puddling. Do not allow water to pool against frames across the slope where there is insufficient slope.

The film can be fixed to the frame using aluminium lockstrip, timber battens and other normal fixing methods.

### Lifespan of film

If installed properly and if protected from chemical or mechanical damage Polygro 200 will give an excellent service life. We have Polygro 200 that has given up to 8 years use in a number of circumstances throughout NZ. Our warranty conditions are shown overleaf.

Discolouration of the film can occur for a number of reasons and is excluded from warranty claims. Particular care should be taken when using sprays containing chlorine, sulphur, bromide, copper and other chemicals which may hasten the degradation of the film cover prematurely and will not be covered under the warranty. EVA (ethylene vinyl acetate) is an additive which makes the film have a more rubbery feel and assists in heat retention, stress crack resistance, resistance to UV light and longer life.

### Anti-fog, anti-drip or anti condensate additives.

Anti-condensate additives in the film are designed to break the surface tension of condensed moisture and to allow condensation to run down the inside of the film surface rather than dripping onto the plants and crops. These anti-condensate additives will generally be on one side of the film and this side will be marked to show the side with the Anti-Fog which should face down in the greenhouse. If the film is installed upside down, the anti condensate will have no effect in preventing dripping. Anti-fog additives work best when the film is new and over time excess condensation will remove the anti-fog properties. No warranty is given on the efficiency of the anti-drip or anti-condensate additives as the factors which may affect the efficiency of this are too varied and out of the suppliers control.

**What can affect Anti-Drip effectiveness :** Insufficient slope on the greenhouse roof, extreme humidity, cold, over washing or spraying of the film which removes the additive over a period. Keep the film clean inside and out for best performance and best light transmission. Avoid direct contact with pesticides and other chemicals on the film. When spraying, avoid direct spray contact with film. Wash chemicals off film.

## **CHEMICAL EFFECTS ON GREENHOUSE FILMS**

There are chemicals in the greenhouse environment that affect the UV stabilizers. Sulfur, halogens (fluorine, bromine, chlorine, etc.) and chemicals containing them, especially pesticides, are very aggressive in deactivating the UV stabilizers in all greenhouse films. Rose growers using large amounts of sulfur and chlorinated-hydrocarbons have learned to expect reduced film life compared to growers who have less need for pest controls.

Over spray can lead to large volumes of pesticide coming in direct contact with the plastic and should be reduced or avoided. Many pesticides not containing halogens or sulfur are available and should not be harmful to greenhouse films when used as directed.

1. Reduce or eliminate over spray with pesticides containing chlorine, bromine, fluorine or sulfur etc.
2. Do not use foggers or smoke generators with any chemical containing chlorine, bromine, fluorine or sulfur.
3. Avoid direct contact with PVC products in general and especially PVC pipe or plasticized PVC tape. Use Frametape on the upper surfaces of these to prevent contact with the greenhouse film.
4. Avoid direct contact of oil based paints or products containing petroleum distillate, e.g. wood preservatives.
5. Do not substitute white paint for shade compounds designed for greenhouse film. Latex house paint may contain fungicides containing sulfur, halogens, etc and could cause premature film breakdown.
6. Failure to observe and follow the above may void your product UV damage warranty.

## **POLYGRO 200 GREENHOUSE FILM PRO-RATA UV WARRANTY**

POLYGRO EVA Greenhouse film is warranted in New Zealand against breakdown of the film by Ultra violet rays (UV ) for a period of 4 seasons ( 48 months or 4 winter seasons and 3 summer seasons) from purchase date. (see exclusions below) If UV breakdown occurs and is confirmed by the manufacturers sample analysis, a pro-rata credit will be allowed on replacement sheeting supplied by Cosio Industries Ltd ,Auckland.

### **PRO-RATA REPLACEMENT**

A credit against the purchase of replacement sheeting from Cosio Industries Ltd, will be given for the unused portion of the warranty period stated above, based on the original invoiced value of the film.

The commencement date of this warranty is the original invoice date of the sale. This warranty applies to the original purchaser of the film only and is not transferable.

Cosio Industries Ltd liability is limited to the replacement of film supplied under the terms of the above warranty. The manufacturer or its agents accept no claims for consequential damages or labour arising from any claim whatsoever for replacement films or covers. This clause is not intended to apply where the Consumer Guarantees Act 1993 applies to the supply.

### **EXCLUSIONS TO THE WARRANTY**

This warranty does not cover damage of any kind or breakdown of film caused by the following :

Mechanical damage of any kind.

Anti-Fog, Anti-Drip additive effectiveness or expectation of lifespan of such additives in the film and subsequent usage.

Chemical or spray damage including damage caused by use of sprays in the greenhouse.

Damage caused by wind, storm, hail or other Act of God.

Extremes of temperature outside of the normal average in NZ.

Breakdown of film on frames or hoops of structure where Frametape or other Cosio approved method has not been used.

Moss, dirt, soil or other external contaminants. Polygro sheeting must be kept washed and cleaned to prevent moss and contaminants from affecting the performance of the film. Do not use sulphur or chlorine based cleaners or sprays on the film.

Construction methods or use of product where all due care and attention is not taken by the purchaser to ensure that the films are installed properly and in accordance with the use intended for the product.

Read the Installation information available from Cosio Industries Ltd to ensure that Polygro 200um film is installed properly.

Improper storage of roll or cover prior to use. This includes, but is not limited to, damage to folds caused by standing rolls on end and or damage to film including overheating of rolls or covers by storage in sheds or outdoors in hot or damaging environments.

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