



ThermaGlas™ Plus Limited Warranties

Light Transmission - Hail Breakage - Condensation Control

“ThermaGlas™ Plus Multiwall transparent or translucent Polycarbonate sheets (hereinafter the “Product”) are hereby warranted by Palram Americas, Inc. (hereinafter the “Manufacturer”), subject to the terms contained herein.

Light Transmission and Color Warranty

Manufacturer warrants that the Product shall not lose more than 10% of its light transmitting capacity for a period of ten (10) years from the Commencement Date (the “Permitted Decrease”) as a direct result of the effect of solar radiation as measured according to the procedures in ASTM D1003-77 (hereinafter referred to as “Decrease”). Decrease is measured by comparing the Product’s original light transmitting capacity vs. a cleaned sample taken from the claim site. Except for this warranty, the Product is not warranted against decrease in light transmission due to natural disasters or any other cause.

Color

The Product shall not display an increase in yellowness (as measured according to the procedures in ASTM D1925-77) (hereinafter a “Color Change”) of more than 10 units delta in the case of transparent clear product or 15 units delta in the case of White Opal or Diffuser products (hereinafter, the “Permitted Color Change”) for a period of 10 years from the commencement date as a direct and exclusive result of the impact of solar radiation.

Remedies

If over a specific period of time the Product loses a greater percentage of its light transmitting capacity than the Permitted Decrease (i.e., 10% for 10 years) and/or the Product displays a Color Change of more than the Permitted Color Change, the Manufacturer will at the Manufacturer’s discretion either (i) provide the Owner with free replacement Product or, (ii) refund all or part of the original purchase price paid by Owner, in accordance with the Refund Table listed below. If the Manufacturer elects to make a refund rather than supply replacement Product, the applicable refund percentages are as follows, based on the time elapsed from the Commencement Date to the time the excessive Decrease or Color Change is reported to the Manufacturer:

Refund Table

Time Elapsed After Commencement Date	Purchaser will be refunded this percentage
To end of 3rd year	100%
End of 4th year	85%
End of 5th year	70%
End of 6th year	55%
End of 7th year	40%
End of 8th year	30%
End of 9th year	20%
End of 10th year	5%
After 10th year	0%

Example:

If by the end of the sixth year the Product has lost 12% of its original light transmission capacity, that loss is more than the Permitted Decrease, and it is not in compliance with the Light Transmission Warranty. The Manufacturer would elect either to provide 100% replacement Product or refund 55% of the original cost of the Product.

Breakage Warranty

Manufacturer warrants that the Product shall not break due to excessive loss of impact strength as a direct and exclusive result of impact of hail measuring up to 1 inch in diameter in size, and attaining up to 20 meter/second in velocity, for a period of ten (10) years from the Commencement Date. Loss of impact strength will be determined by testing conducted by the Manufacturer according to ISO 6603/1 1985(E) and/or ASTM D 5628 95 method F, to be applied on a sample of the broken sheet provided by the Owner. The Breakage Warranty applies only if the sample is tested and broken such that water can leak through the sheet. Except for this warranty, the Product is not warranted against breakage due to natural disasters or any other sort of impact.

Remedies

If the Product fails to meet the Breakage Warranty, the Manufacturer will at the Manufacturer’s discretion either (i) provide the Owner with free replacement Product or, (ii) refund all or part of the original purchase price paid by Owner, in accordance with the Refund Table listed below. If Manufacturer elects to make a refund rather than supply replacement Product, the applicable refund percentages are as follows, based on the time elapsed from the Commencement Date to the time the breakage is reported to the Manufacturer:

Refund Table

Time Elapsed After Commencement Date	Purchaser will be refunded this percentage
To end of 3rd year	100%
End of 4th year	85%
End of 5th year	70%
End of 6th year	55%
End of 7th year	40%
End of 8th year	30%
End of 9th year	20%
End of 10th year	5%
After 10th year	0%

Condensation Control Warranty

The Manufacturer warrants for a period of Ten (10) years from the Commencement Date, the wetting angle for droplets of water condensing on the interior-facing surface of the Product shall not exceed forty-five degrees (45°). Failure to maintain the foregoing degree of condensation control shall be considered a “Condensation Control Failure”. The Condensation Warranty shall not apply where the Condensation Control Failure is caused by:

- Mechanical erosion of the inner surface of the Product, except for the normal erosion by condensation water flow.
- Condensate drip at an attachment of the Product to any structural member not designed to collect and/or remove condensation from the panel.
- Condensate drip from clogged or non-functioning drainage and collection systems.
- The inner surface of the Product being affected by unapproved chemicals or cleaning procedures used inside or outside of the greenhouse.



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Test Procedures

Condensation control will be determined by testing conducted by the Manufacturer according to ASTM D 5725-09.

Remedies

If a claim is covered under the Condensation Control Warranty, the Manufacturer will at the Manufacturer's discretion (i) provide the Owner with a field treatment to the Product, which will bring its performance into compliance with the Condensation Warranty (ii) supply replacement Product or (iii) refund all or part of the original purchase price paid by Owner, in accordance with the Refund Tables listed below. Replacement Product is warranted only for the balance of the Condensation Control Warranty on the original Product. If the Manufacturer elects to make a refund rather than provide a field treatment or replacement Product, the applicable refund percentages are as follows, based on the time elapsed from the Commencement Date to the time the Condensation Control Failure was reported to the manufacturer:

Refund Table

Time Elapsed After Commencement Date	Purchaser will be refunded this percentage
To end of 3rd year	100%
End of 4th year	85%
End of 5th year	70%
End of 6th year	55%
End of 7th year	40%
End of 8th year	30%
End of 9th year	20%
End of 10th year	5%
After 10th year	0%

Example:

If by the end of the sixth year the Product can no longer maintain condensation water droplets with less than a forty-five degree (45°) wetting angle, that loss is not in compliance with the terms of this Warranty. The Manufacturer would elect either to provide 100% replacement Product, provide the Owner with a field treatment to the Product, which will bring its performance into accordance with the Condensation Control Warranty, or refund 55% of the original cost of the Product.

General Provisions Applicable to All Warranties

Who Can Enforce Warranties

These warranties apply only to the original owner (the "Owner") at the time the Product is installed. "Owner" shall also mean a lessee or sub-lessee who installs the Product or contracts to have it installed at a leased property which it occupies at the time of installation. These warranties only apply to Product sold and used in the United States and Canada and are limited warranties.

Commencement Date

The Commencement Date of the warranties will be the date Product is first sold by the Manufacturer to a distributor, retailer, other reseller or end user, as applicable.

Limitations

The warranties are valid only if:

- The Product is used for commercial purposes as specified by the Manufacturer.
- The original proof of purchase is presented.
- The Product is used only in a customary fashion, and is not subjected to abuse, misuse, neglect, improper maintenance, or mishandling.
- The Product is stored, installed, handled, cleaned and maintained in accordance with the Manufacturer's written instructions, Manufacturer's Product Technical and Installation Guides (the "Technical Guides") (available on-line at www.palramamericas.com/Thermaglas or replacement web pages) and any Technical Bulletins issued by Manufacturer in regard to the Product. These requirements include:
 - Installing the Product with its UV protected side outwards\ upwards and the condensation control side inwards/downwards.
 - Avoiding contact with chemicals, paints, adhesives, non-approved cleansing agents or other incompatible materials.
 - Using only Neoprene or EPDM washers, never P.V.C. washers, when fastening panels.
 - Using fastener spacing according to the manufacturer's recommendations.
 - Maintaining a proper roof slope according to required slope.
 - Maintaining proper roof purlin distance and cutting, drilling and fastening.
 - Curving according to the Manufacturer's recommendations for purlin distance and curve radius.

Removal and Installation Costs

These warranties do not cover any costs or expenses of removal or installation of the Product, taxes or shipping costs which may result from the Product failure.

Warranty for Replacement Product

Replacement Product is warranted only for the balance of the applicable warranty on the original Product.

Claims and Notifications

Every warranty claim must be submitted in writing to the Manufacturer or original dealer promptly after the occurrence of the failure or noncompliance, enclosing the original sales receipt or other proof of purchase, along with this warranty. Owner may make only one claim under any of these warranties for any particular installation over the lifetime of the Product. The claimant must allow the Manufacturer an opportunity to inspect any or all of the sheets involved and the installation site itself while the sheets are still in their original position and have not been removed, moved or altered in any way, or upon the Manufacturer's request, return a sample of the sheets to the Manufacturer for testing. The Manufacturer reserves the right to investigate independently the cause of any failure.

Jurisdiction for Disputes

These warranties shall be governed by and shall be construed according to the laws of the Commonwealth of Pennsylvania, USA. The convention on the International Sale of Goods shall not apply. Any claim or dispute related to the Product and/or this warranty shall be exclusively brought before the appropriate court in the Commonwealth of Pennsylvania, USA, which shall have the exclusive jurisdiction in any such claim or dispute. Owner agrees not to assert any claim that such venue is inconvenient.



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Disclaimers

THESE LIMITED WARRANTIES SHALL BE THE MANUFACTURER'S SOLE WARRANTIES APPLICABLE TO THE PRODUCT. THESE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF A PARTICULAR PURPOSE.

THE MANUFACTURER'S LIABILITY UNDER ANY OF THESE WARRANTIES IS LIMITED TO PROVIDING FIELD TREATMENT, REFUND AND/OR REPLACEMENT PANELS, AS EXPRESSLY DESCRIBED HEREIN. THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES. WHERE ANY LAWS RESTRICT THE DISCLAIMER OR LIMITATION OF LIABILITY FOR ANY DIRECT, INDIRECT OR CONSEQUENTIAL DAMAGES, THESE WARRANTIES WILL BE LIMITED IN ACCORDANCE WITH SUCH LAWS. UNDER NO CIRCUMSTANCE SHALL THE MANUFACTURER BE LIABLE FOR ANY AMOUNT GREATER THAN THE ORIGINAL PRICE PURCHASER PAID FOR THE PRODUCT.

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Other Remedies

TO THE EXTENT THE MANUFACTURER IS PROHIBITED UNDER ANY APPLICABLE LAW FROM EXCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PRODUCT, THE DURATION OF ALL SUCH IMPLIED WARRANTIES IS EXPRESSLY LIMITED TO THE DURATION OF THE LIMITED WARRANTY OR, IF GREATER, THE MAXIMUM PERIOD REQUIRED BY APPLICABLE LAW. THESE WARRANTIES GIVE THE OWNER SPECIFIC LEGAL RIGHTS. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO SOME OF THE LIMITATIONS AND EXCLUSIONS IN THESE WARRANTIES MAY NOT APPLY TO PARTICULAR OWNERS.

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