

Thermal Insulation Materials Warranty

1. Definitions

In this Warranty Agreement, the “Original Purchaser” refers to any natural person or legal entity that directly purchases thermal insulation materials—manufactured using substrates such as EPE foam, XPE foam, single/double bubble film, or woven fabric, and laminated with metallized film or pure aluminum foil (hereinafter collectively referred to as the “Products” or “thermal insulation materials”)—from Landy (Guangzhou) Plastic Products Co., Ltd. (hereinafter referred to as “Landy”). This includes, but is not limited to:

Direct Buyer: a self-use customer who purchases the Products directly from Landy and apply them directly to their own use scenarios, such as self-owned buildings, equipment, greenhouses, logistics, and warehousing.

Commercial Buyer: Refers to distributors, wholesalers, retailers, builders, or contractors who procure the Products from Landy for the purposes of resale, engineering installation, supplementary processing, or channel distribution.

2. Scope of Application and Warranty Statement

This warranty applies to all types of composite thermal insulation materials manufactured by Landy. Landy warrants to the Original Buyer that, provided the products are correctly installed or applied by qualified professional technicians in accordance with standard procedures, and are stored, used, and maintained at all times in compliance with the *Thermal Insulation Materials Maintenance and Care Manual*, the products shall be free from defects in raw materials and composite processing workmanship under normal use, maintenance, and environmental conditions.

3. Warranty Period

The warranty period commences from the date of shipment from Landy. Landy makes warranty to the Original Buyer varying warranty periods based on the specific application scenarios and product characteristics of the thermal insulation materials purchased by the Original Purchaser, as detailed below:

3.1 Thermal insulation materials applied in indoor construction: 3-year warranty for the following specific products:

Single/Double bubble thermal insulation	Double-sided pure aluminum XPE insulation	Double-sided metallized (aluminized) XPE insulation
Flame-retardant pure aluminum bubble insulation	Self-adhesive pure aluminum XPE insulation	Double-sided pure aluminum woven fabric
Self-adhesive bubble thermal insulation	Pure aluminum bubble & XPE foam composite insulation	Double-sided metallized (aluminized) woven fabric

3.2 The following products applied under indoor and outdoor conditions: 1-year warranty for the following specific products:

Pallet cover	Container liner
Attic cover	Vapor Barrier

3.3 Fast-moving consumer goods not mentioned above, such as air conditioner covers, outdoor pads, heating covers, water tank covers, and food container liner, shall be inspected by the purchaser within 7 days of receipt. Any non-conformity found during inspection shall be reported in accordance with Article 5 of this Warranty. Once accepted, Landy will no longer provide a warranty for these products.

Note: The valuation base for warranty claims shall be the current market list price of products of the same specifications at the time the claim occurs, rather than the Original Purchaser's original purchase price.

4. Remedies

During the warranty period, in the event of any defects in in raw materials or composite processing workmanship, Landy shall, at its discretion based on actual evaluation, be responsible for repairing or replacing the defective product. Such repair or replacement shall be the Buyer's sole and exclusive remedy under this Warranty.

The warranty period for any repaired or replaced product or component shall expire concurrently with the remaining warranty period of the original product.

5. Claims Procedure

If the Buyer discovers any product defects suspected to be within the scope of this Warranty, the Buyer shall notify Landy in writing within 14 days of discovery, and simultaneously provide proof of purchase (invoices or other supporting documents), compliant installation records, product specification parameters (thickness, material, dimensions, film type (aluminum foil or metallized film)) and detailed photos or videos of the defective parts.

Upon receipt of the claim notice, Landy will conduct an evaluation and determine the most appropriate resolution method, including but not limited to conducting evaluations via remote video conferences or detailed image/video materials, dispatching technicians for on-site inspection, or requiring the Buyer to return the suspected defective product to a designated location for in-depth testing.

If the inspection determines that the defect is attributable to Landy's raw materials or composite workmanship, the relevant costs including, but not limited to, material costs, testing fees, and logistics expenses, shall be borne by Landy.

If the inspection determines that the case falls under the scope of exclusions stipulated in Article 6 of this Warranty, the relevant costs, including, but not limited to material costs, testing fees, and logistics expenses, shall be borne by the Original Purchaser.

6. Exclusions

This warranty does not cover product damage, delamination, aging, failure, wear-and-tear, and related losses directly or indirectly caused by the following factors:

6.1 Transportation and Storage Damage: Damage caused by collisions, puncture by sharp objects, heavy object crushing, or prolonged rainwater immersion during logistics, loading/unloading, warehouse stacking, manual handling, or on-site installation; Damage caused by improper transportation, loading and unloading, or warehousing, collisions, puncture by sharp objects during on-site installation, heavy object crushing.

6.2 Non-compliant Operation and Installation: Failure to strictly cut, overlap, secure, and

install the products in accordance with the specifications in the Thermal Insulation Materials Maintenance and Care Manual; forceful stretching, direct baking with open flames or high heat, or bonding with non-matching, corrosive adhesives;

6.3 Normal Natural Wear and Appearance Changes: Normal appearance wear that does not affect basic insulation performance, such as slight fading from prolonged sunlight exposure, minor surface scratches, long-term uniform aging and thinning, or slight oxidation and haze on the aluminum layer;

6.4 Chemical and Medium Corrosion Damage: Delamination, corrosion, or damage caused by prolonged and continuous contact with strong acids, strong alkalis, high-concentration chemical solvents, oil stains, high salt spray, or sewage immersion;

6.5 Force Majeure: Natural disasters such as hail, severe typhoons, rainstorms, floods, earthquakes, fires, extreme high/low temperatures, and blizzard cracking; or unexpected incidents such as explosions and accidental impacts causing destruction;

6.6 Biological External Damage: Biting by rodents or insects, pets, or plant/animal root penetration and corrosion of the materials;

6.7 Unauthorized Modifications: Any cutting or remodeling, addition of external cover layers, replacement with non-original auxiliary materials, unauthorized secondary thermal lamination, or dismantling and retrofitting performed by any third party without Landy's written permission;

6.8 Operation Beyond Design Conditions: Damage caused by using the product beyond standard heat tolerance temperatures, prolonged unprotected outdoor exposure, continuous heavy pressure, or high-intensity repeated friction exceeding the product's designed application scenarios.

7. Limitation of Liability and Disclaimer

To the maximum extent permitted by applicable law, Landy shall not be liable for any indirect, special, incidental, or consequential losses, personal injury, or property damage arising from the use, misuse, or inability to use the Product, whether based on contractual liability, tort liability (including negligence), or other legal theories.

Nothing in this Warranty shall exclude or limit liability that cannot be excluded or limited under mandatory provisions of applicable laws.

8. Attribution and Transfer of Ownership Rights

The rights under this Warranty are granted solely to the Original Buyer. Without Landy's prior written consent, the rights of Direct Buyers under this Warranty shall not be transferred with real estate, assigned to subsequent owners, or transferred or assigned in any other manner. When a Commercial Buyer lawfully resells or installs and delivers the purchased products to an end-user, all warranty rights under this Warranty shall automatically transfer with the product to that end-user.

9. Miscellaneous

Landy reserves the right to amend or update this Warranty from time to time, and the revised terms shall take effect from the date of publication.

Thermal Insulation Materials

Maintenance and Care Manual

Proper storage, installation, and routine maintenance can guarantee the thermal insulation performance of the materials while maintaining the validity of the warranty agreement. All users must strictly adhere to all of the following guidelines:

1. Installation Operation Guidelines

- 1.1 The installation substrate must be thoroughly cleaned, free of sharp stones, metal burrs, and protruding rebar, to prevent puncturing the EPE foam, XPE foam, or bubble film foaming substrates;
- 1.2 Thermal expansion and contraction allowances must be reserved at material overlap joints. Tight or stretched installation is strictly prohibited in high-temperature environments to prevent aluminum foil or metallized film cracking or substrate delamination caused by temperature changes.
- 1.3 Fastening accessories should be rounded pressure strips or soft clips. Iron nails or sharp wire ties are strictly prohibited from directly penetrating and fixing through the surface aluminum foil or metallized film.

2. Restrictions on Outer Covering Usage

- 2.1 It is strictly prohibited to use plastic films of unknown composition or waterproof membranes to directly cover the surface layer of thermal insulation materials for a prolonged period. In high-temperature and enclosed environments, chemical reactions are prone to occur, causing product delamination and melting or deformation of the foaming substrate.
- 2.2 In long-term outdoor application scenarios, asphalt or oil-based waterproof membranes are strictly prohibited from directly bonding with the aluminum foil or metallized film surface.

3. Stacking and Load Control Requirements

- 3.1 Finished rolls and cut boards must not be stacked excessively high. Stacking metals, stones, or heavy equipment on the upper layers is strictly prohibited to avoid substrate depression and aluminum foil or metallized film rupture caused by heavy pressure
- 3.2 Long-term placement of metal components, chemical raw materials, or various debris on the surface of the installed insulation layer is strictly prohibited, as localized continuous heat accumulation will accelerate aluminum foil or metallized film oxidation and shrinkage deformation of the foaming substrate;
- 3.3 In severe cold and freezing environments, dragging, stepping on, or violently bending the materials is strictly prohibited. At low temperatures, the foaming substrate is prone to embrittlement and cracking, and the aluminum foil or metallized film is prone to irreversible crease damage.

4. Special Protection for Open-Air / Outdoor Scenarios

4.1 Thermal insulation materials used in open-air or outdoor scenarios must be equipped with wind-resistant pressure strips and fastening clips;

4.2 Prior to severe gale weather, all fixing points must be comprehensively inspected to prevent strong winds from tearing or overturning the materials, which could cause large-scale tearing and damage.

5. Control of Operating Environmental Media

5.1 Thermal insulation materials must not be immersed for prolonged periods in acidic/alkaline sewage, high-salinity seawater, or chemical waste liquids. For pipeline insulation scenarios, a waterproof wrap must be added to the outer layer to prevent long-term immersion in condensate water from causing delamination;

5.2 Various chemical reagents, concentrated disinfection solutions, and rust removers are strictly prohibited from being directly splashed or accumulated on the product surface. In case of accidental contact, they must be immediately wiped and cleaned with clean water.

6. Routine Cleaning and Idle Storage & Maintenance

6.1 Regularly clean surface dust, fallen leaves, oil stains, and corrosive residues from the materials. Long-term residue of stains will accelerate aluminum film or metallized film oxidation and yellowing/aging of the foaming substrate;

6.2 Cleaning must be done using only clean water or mild neutral detergents. Scouring pads (steel wool) or hard bristle brushes are strictly prohibited for scrubbing, and strong acid or strong alkali cleaners are strictly prohibited for washing the aluminum foil or metallized film surface;

6.3 When products are stored idly for a long time, the rolls must be placed flat in a dark, dry, and well-ventilated warehouse. Outdoor exposure to sunlight, rain, and moisture is strictly prohibited, and they must be kept away from open flames and high-temperature heat sources.