



**PLIODECK® INSULATION  
ADHESIVE**

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Supersedes: May 1999

**PLIODECK INSULATION ADHESIVE**

**PRODUCT DESCRIPTION:**

PLIODECK Insulation Adhesive is designed for bonding most insulation and recovery boards to most flat roofing substrates. It is also ideal for re-roof applications to bond insulation and recovery boards directly to mineral cap asphalts.

The adhesive is applied in 3/8” to 1/2” liquid beads from cart mounted F-style cans. The adhesive may also be applied by hand in corners or for crickets and saddles in tapered insulation systems. The adhesive reacts with moisture in substrates and in the air, creating a bond that can generally be roofed over in 15 to 30 minutes. Since temperature and moisture play a role, bonding times may be longer in dry conditions or in temperatures under 55°F. Adhesive will typically be fully cured 24 hours. The bond is very resistant to heat, water and many chemicals once it is fully cured.

The adhesive is 100% solids and contains no solvents, and as such it may be treated as non-hazardous waste, although local waste disposal regulations may vary.

**PRODUCT BENEFITS:**

- Ease of application
- Rapid set times
- Excellent heat resistance
- Excellent strength development
- Excellent adhesion to a wide variety of substrates
- Versatile, high overall performance

* TYPICAL LIQUID PROPERTIES AT 77°F	
Base	Polyurethane
Color	Amber
Solids	
Weight, %	100.00
Viscosity, cps	19,000
Brookfield RVT Spindle No. 6 at 10 rpm	
Specific Gravity	1.1512
Pounds per Gallon	9.59
Free NCO, %	10.00
VOC's	-0-

\* Typical Values: (Based on material tested in our laboratories but variable from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.)

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## **PLIODECK® Insulation Adhesive**

### **COMPATIBLE SUBSTRATES:**

Pre-cast Concrete	Poured Gypsum	Mineral Capped Modified Bitumen or BUR
Steel-22 gauge or lower	OSB/Plywood	Smooth Surfaced BUR (Pull Test Required)
Structural Concrete	Cementitious Wood Fiber	Base Sheets (Pull Test Recommended)
Lightweight Concrete		Existing Sprayed Polyurethane Foam

### **COMPATIBLE INSULATIONS/RECOVERY BOARDS:**

Expanded Polystyrene	Fiberboards	Polyisocyanurate
Extruded Polystyrene	Perlite	Gypsum Cover Board

**POTENTIALLY NON-COMPATIBLE SUBSTRATES** (These and any other substrates not listed above must be reviewed and approved by Ashland.)

Coal Tar Pitch BUR	Non-Asphaltic Base Sheets
Smooth Surfaced Modified Bitumen	Aged Asphalt

### **SUBSTRATE AND INSULATION/RECOVERY BOARD PREPARATION:**

- Insulation adhesive should be applied when air and surface temperatures are 40°F and rising. It is recommended that adhesive be stored at 70°F prior to application in cold weather.
- Surfaces to be bonded together must be free of dirt, debris, or other contaminants. Surfaces can be moist or damp, but free of standing water. When re-roofing over mineral cap, surface should be swept, power washed or vacuumed to remove loose material.
- **Existing Polyurethane Foam:** The surface of the polyurethane roof, including coating, should be removed with a scarifier and the surface blown clean before applying PLIODECK Insulation Adhesive.
- Cans must not be opened until time of use.
- 4' x 4' insulation or recovery boards are recommended.
- PLIODECK Insulation Adhesive is not recommended for use on roofs that show signs of excessive deterioration or loss of structural integrity.

### **COVERAGE:**

300 - 400 square feet per gallon in 3/8" - 1/2" beads, 12" on center. Coverage rates will vary depending on the type of deck surface and insulation used. It is also recommended that 6" on center beads be applied around the perimeter, based on FM wind uplift guidelines.

### **CONTAINER SIZE:**

- 1 gallon F – style cans with graduated pour spout
- 2.5 gallon F – style cans with graduated pour spout



## **PLIODECK® Insulation Adhesive**

### **SHIPPING CONFIGURATIONS:**

1 gallon cans: 4 cans/carton, 48 cartons/pallet

2.5 gallon cans: 2 cans/carton, 48 cartons/pallet

Recommended storage temperature is 50° F to 80°F in a dry area out of direct sunlight. Cans must not be opened until time of use. Since exposure to moisture will cure the adhesive, use all product in opened containers immediately.

### **SHELF LIFE:**

9 months properly stored as instructed above.

### **CART ASSEMBLY:**

Refer to cart assembly instructions.

### **ADHESIVE APPLICATION:**

Refer to product brochure for illustrations related to adhesive application.

At time of use, unscrew cap on cans, remove moisture seal and attach plastic pour spouts. Mount cans to cart and secure tightly. If cart mounting plates do not fit securely against cans, use pliers or channel locks to align plates properly. Adjust cans to apply beads 12" on center with the outside beads placed 6" in from edge of board line. Punch a vent hole in the cans with an awl. Flip lever up to begin applying adhesive to the deck, pacing cart speed to apply a 3/8" to 1/2" bead. Adhesive will be thicker and pour more slowly in colder temperatures. Spouts are designed for summer application, and in cooler weather cart pace may be increased by cutting larger openings in the spout. Cart may be pulled or pushed down the deck. Replace cart lever in down position to stop flow of adhesive.

**It is recommended that insulation or recovery boards be installed as soon as adhesive beads have been applied to substrate.** However, board installation may be delayed until the adhesive begins to change from a translucent, amber liquid to cream colored. Do not wait until adhesive has foamed.

In 5 - 15 minutes the adhesive will change to a cream color and will begin to foam. The insulation or recovery boards may rise slightly from the surface of the substrate as a result of this foaming, and may be walked in to re-instate contact with the substrate. Typically, one or two walk-ins will assure a smooth insulation or recovery board surface for membrane application; however, in cases of high moisture content several walk-ins may be required. Warped or cupped boards may also require several walk-ins. It is recommended that for stubborn warps or cups a weight be applied until the adhesive has set. Optionally, a single fastener from a power gun may be applied to hold down stubborn warps or cups. It is not unusual for the adhesive to foam up through the joint lines of the boards, and excess foam may be trimmed away after the adhesive has set.

Waterproofing membrane may be applied as soon as the boards have become firmly attached to the substrate, typically in 15 - 30 minutes. Times will vary with ambient temperature and moisture conditions.

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### **IN CORNERS OR AREAS WITH MANY PENETRATIONS:**

Unscrew cap on can, remove moisture seal and attach plastic pour spout. Punch breather hole(s) in can and hand apply a 3/8" to 1/2" bead of adhesive. Protective gloves are recommended to prevent adhesive from sticking to skin.

### **ALONG PERIMETER EDGES:**

Adjust cans on cart to apply 3/8" to 1/2" beads, 6" on center, with the outside beads placed 1" in from edge of board line. It is recommended that 6" on center beads be applied at least 4' in from the perimeter edge, or more in accordance with FM wind uplift guidelines. Optional extenders may be added to the cart to increase the number of cans, and hence coverage width, when applying 6" on center beads.

Apply normally by cart or hand as per adhesive instructions above.

### **CLEANUP:**

Uncured adhesive may be removed with acetone.

Cured adhesive is not easily removed.

### **PRECAUTIONS:**

- Wear protective gloves and safety glasses when handling this adhesive.
- Read and follow all guidelines in the Material Data Safety Sheet (MSDS).
- Unused adhesive in opened containers may be usable at a later date if it is still translucent, amber in color and pours freely. However, once a can is opened and exposed to moisture the remaining shelf life is unpredictable and generally very short. **It is recommended that all adhesive be used within one hour of breaking the moisture seal of the can.**
- Residual adhesive in empty cans will fully cure to an inert urethane film and cans can typically be discarded as non-hazardous, in accordance with local disposal regulations.
- Do not mix adhesive with water, as excessive foaming may result.

### **HANDLING:**

**Ashland maintains Material Safety Data Sheets on all of its products. Material Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers.**

**Our Material Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Ashland products in your facilities.**

**DOT Label Required:** None Required

