IKO Millennium PG-1
Pump Grade Two-Part
18.9 L (5 Gallon) Part 1(A) and Part 2(B)
Low Viscosity Insulation Adhesive

Basic Use
IKO Millennium Adhesive dispenses 1.3 cm to 1.9 cm (½ in to ¾ in) wide liquid beads that will quickly spread to a width 5.1 cm to 7.6 cm (2 in to 3 in). PG-1 Low Viscosity Insulation Adhesive will expand and rise to fill minor surface irregularities.

Approved Insulations and Substrates
- Polyisocyanurate
- Asphaltic cover boards
- Wood or steel
- Surface of modified bitumen membranes and base sheets (sanded or granule surfaced)
- Approved insulations (multi-layer applications)
- Smooth or gravel surface built-up roof (re-roof applications)

For a complete list of approved substrates and insulation types, or for additional information, contact IKO Technical Department.

Storage
Keep temperature of contents between 7°C to 35°C (45°F to 95°F). Bring temperature of material to approximately 22°C (70°F) before use. Do not store in direct sunlight or above 35°C (95°F). KEEP FROM FREEZING! Shelf life is 18 months from date of manufacture.
Note: material must be approximately 22°C (70°F) for best application. Material stored and utilized at cold temperatures will be prone to crystallization of Part 1.

Surface preparation
All work surfaces should be clean, dry, and free of dirt, dust, debris, oils, loose and/or embedded gravel, un-adhered coatings, deteriorated membrane and other contaminants that may result in a surface that is not sound or is uneven.

Limitations
- Do not apply to wet surface.
- Not recommended for use with insulation boards larger than 1.2 m x 1.2 m (4 ft x 4 ft).
- Do not use warped or curled insulation boards. All insulation boards must lay flat upon the roof surface.
- Do not apply when temperatures are below -4°C (25°F).

Application for 18.9 L (5 Gallon) Size

1. Insert adhesive bladder labeled Part 1 into the tray labeled Part 1. Apply small amount of non-lithium grease to female end of quick connect coupling. Attach quick connect fitting on bladder to Part 1 pump inlet hose.
2. Insert adhesive bladder labeled Part 2 into tray labeled Part 2. Apply small amount of non-lithium grease to female end of quick connect coupling. Attach quick connect fitting on bladder to Part 2 pump inlet hose.
3. With the manifold in the OFF mode, flip power switch to “on”.
4. Slowly open manifold valves, motor will start automatically. Let a small amount of material flow into a waste container to ensure that an equal amount of material is coming out of each manifold port.
5. Shut off manifold valves, motor will stop automatically when shut-off pressure is reached.
6. Wipe threaded portion of manifold clean with rag, apply non-lithium grease to threaded portion of manifold.
7. Attach static mixing nozzle to applicator manifold using retaining nut or one piece mixing nozzle. Ensure that it is completely seated and then begin applying adhesive.
8. Apply adhesive directly to substrate as recommended

Shut Down and Extended Breaks

1. Close manifold valves
2. Turn off power
3. Remove static mixing tips and discard
4. Relieve any pressure in hoses by opening and closing applicator valves
5. Pump a non-lithium grease into both grease fittings on the gun manifold until it flows out of the tip. Install grease into part 1 (A) grease fitting first.

Caution: Remove static mixing nozzle during any pause in application or operation. Do not allow pressure to build up in the static mixing nozzle. If static mixing nozzle remains on applicator manifold, material can react and harden in the manifold and possibly the ends of the hoses. During removal and attachment of static mixing nozzles, a wrench may be necessary for removal. Clean manifold threads and re-grease frequently.

Utilize the empty cardboard container to capture adhesive pre-dispense or recycle empty cardboard containers.

Apply PG-1 Insulation Adhesive directly to the substrate using a ribbon pattern. Space the beads 30 cm (12 in) on center to achieve proper coverage rates for standard insulation attachment.

Once PG-1 Insulation Adhesive is applied, allow the foam to begin rising and place the insulation board into the adhesive before the adhesive has skinned over. Eliminate uneven surfaces to ensure positive contact between the insulation boards, adhesive, and substrates.

Plastic bladders are designed for easy visibility to ensure adhesive maintains a 1:1 ratio. If material is not consumed at a 1:1 ratio stop application and check for blockage in hose or dispensing manifold.

Unused material can be applied at a later date. Properly clean and grease the dispensing wand and pump unit according to the manufacturer’s recommendations.

Equipment

Cyclone Low Pressure Pump Cart

Color
Foamed adhesive will appear off white to light amber.

Safety
Protective equipment such as safety glasses and protective gloves must be worn when operating or servicing the Cyclone pump cart.
The Cyclone pump runs on 110 volt 60Hz AC current. Use a grounded power cord that is in good condition, rated for outdoor use, and a minimum 14-gauge construction.

Packaging and Coverage
Part 1 and Part 2 mixed through an approved low pressure pump cart will produce the following coverage rates: 18.9 L (5 gal) Kit: 232 m^2 to 279 m^2 (2,500 to 3,000 ft^2).

Rates are based on an application pattern of 4 (four) ½ in to ¾ in (1.3 cm to 1.9 cm) ribbons spaced 30 cm (12 in) o.c. per 1.2 m x 1.2 m (4 ft x 4 ft) insulation board.

NOTE: A ½ in to ¾ in (1.3 cm to 1.9 cm) wide uncured adhesive bead will produce a 5.1 cm to 7.6 cm (2 in to 3 in) wide cured adhesive bead that will rise approximately 1.9 cm to 2.5 cm (¾ in to 1 in) above the substrate. Coverage rates may be lower when used over irregular surfaces and will vary depending on roughness.

IKO Millennium PG-1
Pump Grade Two-Part
56.7 L (15 Gallon) Part 1(A) and Part 2(B)
Low Viscosity Insulation Adhesive

Basic Use

IKO Millennium Adhesive dispenses 1.3 cm to 1.9 cm (½ in to ¾ in) wide liquid beads that will quickly spread to a width of 5.1 cm to 7.6 cm (2 in to 3 in). PG-1 Low Viscosity Insulation Adhesive will expand and rise to fill minor surface irregularities.

Approved Insulations and Substrates

- Polyisocyanurate
- Asphaltic cover boards
- Wood or steel
- Surface of modified bitumen membranes and base sheets (sanded or granule surfaced)
- Approved insulations (multi-layer applications)
- Smooth or gravel surface built-up roof (re-roof applications)

For a complete list of approved substrates and insulation types, or for additional information, contact IKO Technical Department.

Storage

Keep temperature of contents between 7°C to 35°C (45°F to 95°F). Bring temperature of material to approximately 22°C (70°F) before use. Do not store in direct sunlight or above 35°C (95°F). KEEP FROM FREEZING! Shelf life is 18 months from date of manufacture.
Note: material must be approximately 22°C (70°F) for best application. Material stored and utilized at cold temperatures will be prone to crystallization of Part 1.

Surface preparation

All work surfaces should be clean, dry, and free of dirt, dust, debris, oils, loose and/or embedded gravel, un-adhered coatings, deteriorated membrane and other contaminants that may result in a surface that is not sound or is uneven.

Limitations

- Do not apply to wet surface.
- Not recommended for use with insulation boards larger than 1.2 m x 1.2 m (4 ft x 4 ft).
- Do not use warped or curled insulation boards. All insulation boards must lay flat upon the roof surface.
- Do not apply when temperatures are below -4°C (25°F).

Application for 56.7 L (15 Gallon) Size

NOTE: A fifteen gallon conversion kit is required on the Cyclone Low Pressure Pump Cart

1. Replace the Cyclone wheels with heavy-duty wheels supplied with conversion kit. The heavy duty wheels will accommodate the extra weight associated with the fifteen gallon drums of adhesive
2. Remove retaining rods from drum rack
3. Insert drum rack into Cyclone – taper goes to the front of the cart
4. Reinstall retaining rods and pins to secure drum rack to cart frame
5. Remove black and grey quick connect coupling and replace with banjo style coupling
6. Remove covers from top and bottom of the desiccant filter
7. Insert desiccant filter into rubber holder and tighten clamp. A light lubricant is advised when inserting the filter. Do not block or cover holes with lubricant or grease. Note: The desiccant filter sensor will turn purple indicating the filter need to be replaced.
8. Remove drum bung aps from Adhesive Part (1) side and install desiccant assembly and ball valve assembly.
9. Remove drum bung aps from Adhesive Part (2) side and install desiccant assembly and ball valve assembly.
10. Lock pump cart wheels and carefully load adhesive drums onto rack. Desiccant filter and vent should be placed at the highest point. Secure drums to drum rack with the ratcheting tie down provided. CAUTION: A full adhesive drum weighs +/- 68 kg (150 lbs). Loading full adhesive drums should be a two-person operation to avoid injury.
11. Step 11 – Place a small amount of grease on both the male and female sides of the banjo style fittings and connect the drum and inlet hoses together.

Application

1. Apply small amount of non-lithium grease to female end of quick connect coupling. Attach quick connect fitting to Part 1 pump inlet hose.
2. Apply small amount of non-lithium grease to female end of quick connect coupling. Attach quick connect fitting to Part 2 pump inlet hose.
3. With the manifold in the OFF mode, flip power switch to “on”.
4. Slowly open manifold valves, motor will start automatically. Let a small amount of material flow into a waste container to ensure that an equal amount of material is coming out of each manifold port.
5. Shut off manifold valves, motor will stop automatically when shut-off pressure is reached.
6. Wipe threaded portion of manifold clean with rag, apply non-lithium grease to threaded portion of manifold.
7. Attach static mixing nozzle to applicator manifold using retaining nut or one piece mixing nozzle. Ensure that it is completely seated and then begin applying adhesive.
8. Apply adhesive directly to substrate as recommended

Apply PG-1 Insulation Adhesive directly to the substrate using a ribbon pattern. Space the beads 30 cm (12 in) on center to achieve proper coverage rates for standard insulation attachment.

Once PG-1 Insulation Adhesive is applied, allow the foam to begin rising and place the insulation board into the adhesive before the adhesive has skinned over. Eliminate uneven surfaces to ensure positive contact between the insulation boards, adhesive, and substrates.

Shut Down and Extended Breaks

1. Close manifold valves
2. Turn off power
3. Remove static mixing tips and discard
4. Relieve any pressure in hoses by opening and closing applicator valves

5. Pump a non-lithium grease into both grease fittings on the gun manifold until it flows out of the tip. Install grease into part 1 (A) grease fitting first.

Caution: Remove static mixing nozzle during any pause in application or operation. Do not allow pressure to build up in the static mixing nozzle. If static mixing nozzle remains on applicator manifold, material can react and harden in the manifold and possibly the ends of the hoses. During removal and attachment of static mixing nozzles, a wrench may be necessary for removal. Clean manifold threads and re-grease frequently.

Packaging and Coverage

Part 1 and Part 2 mixed through an approved low pressure pump cart will produce the following coverage rates: 56.7 L (15 gal) Kit: 697 m^2 to 836 m^2 (7,500 to 9,000 ft^2).

Rates are based on an application pattern of 4 (four) ½ in to ¾ in (1.3 cm to 1.9 cm) ribbons spaced 30 cm (12 in) o.c. per 1.2 m x 1.2 m (4 ft x 4 ft) insulation board.

NOTE: A ½ in to ¾ in (1.3 cm to 1.9 cm) wide uncured adhesive bead will produce a 5.1 cm to 7.6 cm (2 in to 3 in) wide cured adhesive bead that will rise approximately 1.9 cm to 2.5 cm (¾ in to 1 in) above the substrate. Coverage rates may be lower when used over irregular surfaces and will vary depending on roughness.

IKO Millennium PG-1
Pump Grade Two-Part
189 L (50 Gallon) Part 1(A) and Part 2(B)
Low Viscosity Insulation Adhesive

Ensure pump equipment is specifically designed to dispense two-component 1:1 ratio low viscosity polyurethane adhesive. Refer to manufacturer's instructions.

Basic Use

IKO Millennium Adhesive dispenses 1.3 cm to 1.9 cm (½ in to ¾ in) wide liquid beads that will quickly spread to a width of 5.1 cm to 7.6 cm (2 in to 3 in). PG-1 Low Viscosity Insulation Adhesive will expand and rise to fill minor surface irregularities.

Approved Insulations and Substrates

- Polyisocyanurate
- Asphaltic cover boards
- Wood or steel
- Surface of modified bitumen membranes and base sheets (sanded or granule surfaced)
- Approved insulations (multi-layer applications)
- Smooth or gravel surface built-up roof (re-roof applications)

For a complete list of approved substrates and insulation types, or for additional information, contact IKO Technical Department.

Storage

Keep temperature of contents between 7°C to 35°C (45°F to 95°F). Bring temperature of material to approximately 22°C (70°F) before use. Do not store in direct sunlight or above 35°C (95°F). KEEP FROM FREEZING! Shelf life is 18 months from date of manufacture.
Note: material must be approximately 22°C (70°F) for best application. Material stored and utilized at cold temperatures will be prone to crystallization of Part 1.

Surface preparation

All work surfaces should be clean, dry, and free of dirt, dust, debris, oils, loose and/or embedded gravel, un-adhered coatings, deteriorated membrane and other contaminants that may result in a surface that is not sound or is uneven.

Limitations

- Do not apply to wet surface.
- Not recommended for use with insulation boards larger than 1.2 m x 1.2 m (4 ft x 4 ft).
- Do not use warped or curled insulation boards. All insulation boards must lay flat upon the roof surface.
- Do not apply when temperatures are below -4°C (25°F).

Apply PG-1 Insulation Adhesive directly to the substrate using a ribbon pattern. Space the beads 30 cm (12 in) on center to achieve proper coverage rates for standard insulation attachment.

Once PG-1 Insulation Adhesive is applied, allow the foam to begin rising and place the insulation board into the adhesive before the adhesive has skinned over. Eliminate uneven surfaces to ensure positive contact between the insulation boards, adhesive, and substrates.

Packaging and Coverage

Part 1 and Part 2 mixed through an approved low pressure pump cart will produce the following coverage rates: 189 L (50 gal) Kit: 2,323 m^2 to 2,787 m^2 (25,000 to 30,000 ft^2).

Rates are based on an application pattern of 4 (four) ½ in to ¾ in (1.3 cm to 1.9 cm) ribbons spaced 30 cm (12 in) o.c. per 1.2 m x 1.2 m (4 ft x 4 ft) insulation board.

NOTE: A ½ in to ¾ in (1.3 cm to 1.9 cm) wide uncured adhesive bead will produce a 5.1 cm to 7.6 cm (2 in to 3 in) wide cured adhesive bead that will rise approximately 1.9 cm to 2.5 cm (¾ in to 1 in) above the substrate. Coverage rates may be lower when used over irregular surfaces and will vary depending on roughness.