# Technical Data Sheet

# Millennium PG-1 EF ECO Adhesive IB Roof Systems®

#### **Product Description:**

Millennium PG-1 EF ECO is a two component, low rise, solvent-free, polyurethane foamable adhesive that contains no HFC-134a or other high Global Warming Potential (GWP) propellants. Millennium PG-1 EF ECO is packaged in dual pressurized canisters and dispensed utilizing a disposable adhesive applicator assembly and twenty five-foot hoses. This product is approved for use in all US and Canadian markets that regulate ozone depleting substances.

#### Use:

Millennium PG-1 EF ECO is designed for use as an adhesive for bonding approved roof insulations to a building's structural roof deck, base sheets, other insulation board stock, and smooth or gravel built-up asphaltic roof surfaces. Millennium PG-1 EF ECO is also designed for IB Fleeceback PVC membrane attachment in ribbon or spatter applications. It is dispensed in 1" – 1.5" (2.5cm – 3.8cm) wide beads or in a spatter application using our proprietary dual-use design static mixer. Millennium PG-1 EF ECO expands and rises to fill minor surface irregularities.

#### Packaging:

Cannister - Includes Part 1 & Part 2

#### Features:

- Contains no CFC or HCFC, high global warming potential propellants
- VOC content < 50 g/L</li>
- · Proprietary spray nozzle allows for multiple applications
- · Solvent free formula

Approximate Coverage* and Weight			
PG-1 EF ECO	Weight		Coverage*
Cannisters	1	2	Up to 35 squares per set**
	49 lbs	43 lbs	(ribbon application @ 12" o.c.)
Cannisters	1	2	Up to 24 squares per set**
	49 lbs	43 lbs	(spatter application)

\*Note conditions - i.e. Standard Temperature/Humidity Conditions (~70F / 50% RH)

\*\*Coverage rate estimates indicate total square feet of insulation attachment per kit. Rates are based on an application pattern of 4 (four) 1" – 1.5" (2.5cm 3.8cm) ribbons spaced 12" (30cm) o.c. per 4' x 4' (1.2m x 1.2m) insulation board. Coverage rates may be lower when used over irregular surfaces.

#### Substrates<sup>1</sup>:

- Concrete, Cementitious Wood Fiber, Gypsum, Lightweight Insulating Concrete, Steel or Wood Decks
- Approved Insulations (EPS, XPS, ISO, HD ISO)
- Approved Cover Boards (Gypsum, Mineral Wool, Wood Fiber)
- Smooth surface and Granular Asphalt BUR (aged)
- Smooth and Granular surfaced SBS Modified Bitumen
- Granular APP Modified Bitumen

<sup>1</sup>Substrates and all surfaces must be clean, dry, and free of dirt, dust, debris, oils, loose and/or embedded gravel. IB Roof Systems recommends insulation adhesion pull tests in accordance with ANSI/SPRI IA-1 prior to beginning work to confirm acceptable uplift resistance.

# **Approvals:**

Underwriters Laboratories, FM Approvals, Miami-Dade County and Florida Building Code Product Approvals. Refer to individual assembly approvals for additional information and requirements.



## **Application:**

Refer to IB Specifications and Construction Details for additional installation instructions. Millennium PG-1 adhesive can be used to install IB roof insulation and cover boards over approved dry, clean substrates. Installation over existing smooth or gravel surfaced asphalt roofs removed) requires additional preparation. Millennium Universal Primer is required over prepared (spudded or swept) gravel surfaced asphalt BUR, or smooth / granulated BUR or modified bitumen membranes. Millennium PG-1 adhesive can be used to install IB Fleeceback membrane in a spatter application to a variety of roof substrates including insulation boards, cover boards, structural concrete and approved, prepared existing smooth or granule surfaced modified bitumen roofs. Apply Millennium PG-1 Adhesive using appropriate dispensing equipment, directly to the substrate, using the roof membrane manufacturer's recommended ribbon or spatter pattern to achieve proper coverage rates. As adhesive is applied, allow to begin rising then place insulation board/ membrane into wet adhesive and roll membrane with a weighted roller to ensure positive contact between insulation/membrane, adhesive and substrate. Do not allow the adhesive to skin over. Eliminate uneven surfaces to ensure positive contact between the insulation board and substrate. Read all instructions, Millennium Product Guidelines, and SDS prior to use of any product.

# **Temperature Guidelines/Storage & Handling:**

Store in a dry area. Protect from freezing. Optimum chemical storage temperature is 45-95°F (7-35°C). Internal Chemical Temperature at Application: Warm or cool product temperature to 70-90°F/20-32°C prior to use. Outside Application Temperature / Ambient is 40°F (4°C) and rising. Substrate Surface Temperature Range: 40-100°F (4-38°C). Temperatures above or below Optimal Application range require additional monitoring and may affect tack/cure times, adhesion performance and application rates.

#### **Limitations:**

- Do not use when ambient, substrate or product temperatures are outside specified temperature ranges.
- Do not use during inclement weather, on wet surfaces or on any roof deck showing signs of deterioration or loss of structural integrity.
- · Do not use after the expiration date.

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- Approved existing roof surfaces must be clean, dry, smooth and adequately attached to resist wind loads.
- Not recommended for use with insulation boards larger than 4'x4'.
- Do not use warped or curled insulation boards. All insulation boards must lay flat upon the roof surface.
- Millennium Surface Treatment primer required over nonoxidized (fresh/glazed) asphalt or smooth APP membranes.