



# BaySystems NorthAmerica

## TECHNICAL BULLETIN

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# Bayseal™ 0.5

Bayseal™ 0.5 is a two component, low density, non-ozone depleting polyurethane foam insulation for use in the construction of energy efficient buildings and homes. High efficiency with yield up to 15,000 board feet per kit – individual results will vary. For ideal performance follow these technical recommendations:

### EQUIPMENT

Bayseal™ 0.5 is designed for use with a 1:1 by volume proportioning unit equipped with heaters to maintain recommended material temperatures. The spray gun should be set up for 10 – 12 pounds per minute throughput. Proper equipment and gun selection is critical to ensure optimal processing characteristics. Contact a BaySystems Technical representative for assistance in selecting proportioning units and guns.

### MIXING

Bayseal™ 0.5 must be continuously mixed to ensure *MAXIMUM YIELD* and processing characteristics. Mixing **MUST** be initiated prior to circulating the material. We recommend using a 1 – 1 ½ HP air or electric motor with the two four inch collapsible blades. If the material is allowed to sit for more than 12 hours, material in the resin hose must be poured into the mixing resin drum.

Some Polyurethane systems are not compatible. Therefore it is **VERY IMPORTANT** when switching between two systems that the equipment and hoses **MUST BE** thoroughly flushed with the new material.

### PROCESSING TEMPERATURE AND HUMIDITY

To ensure maximum performance, be sure to apply Bayseal™ 0.5 between ambient temperatures of 40 – 110°F and relative humidity less than 80%.



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## MACHINE PRESSURE AND TEMPERATURE RECOMMENDATIONS

|                      | Temperature, °F | Pressure, psi |
|----------------------|-----------------|---------------|
| A Preheater          | 120 - 140°F     | 800 - 1200    |
| B Preheater          | 120 - 140°F     | 800 - 1200    |
| Hose Temperature     | 125 - 135°F     |               |
| Material Temperature | 90 - 105°F      |               |

## MATERIAL STORAGE

Bayseal™ 0.5 components MUST be stored between 50 – 90°F out of direct sunlight. The A Component is moisture sensitive. If material remains in a drum be sure to seal bungs tightly to minimize moisture exposure.

The A and B components MUST NOT be stored in temperatures less than 32°F for prolonged periods. Some phase separation in the B component may be noticed at these temperatures. If there is phase separation the material must be warmed and thoroughly mixed prior to use.

## DISPOSAL OF EMPTY DRUMS

Empty drums should be drip dry, and may be sent to a qualified drum re-conditioner, drum recycling facility, or a landfill permitted to accept used drums. Drums should not be torch cut to avoid generation of irritating and toxic gases and vapors from residual chemicals or cured product present in the drums.

## SAFETY PRECAUTIONS

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Bayseal™ 0.5 components. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your BaySystems representative or contact Bayer's Product Safety and Regulatory Affairs Department in Pittsburgh, Pa.

P. O. Box 1509, Spring, TX 77383 - 800-221-3626



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### SYSTEM SPECIFICATIONS

|                  |                    |
|------------------|--------------------|
| <u>Viscosity</u> | <u>cps @ 70° F</u> |
| A-Component      | 175 - 250          |
| B-Component      | 150 - 250          |
| <u>Mix Ratio</u> | <u>By Volume</u>   |
| A-Component      | 100                |
| B-Component      | 100                |

### TYPICAL PHYSICAL PROPERTIES \*

|                                   |                                   |   |                              |
|-----------------------------------|-----------------------------------|---|------------------------------|
| DENSITY                           | ASTM D – 1622                     | Nominal 0.5 lbs / ft <sup>3</sup>                                   |                              |
| PERCENT OPEN CELLS                | ASTM D – 2856                     | > 90%   |                              |
| FUNGI RESISTANCE                  | ASTM G – 21                       | Zero Rating   |                              |
| SURFACE BURNING CHARACTERISTICS † | ASTM E – 84<br>(Nominal 5 inches) | Class 1<br>≤ 25 Flame Spread Index<br>≤ 450 Smoke Development Index |                              |
| AIR PERMEABILITY                  | ASTM E – 283                      | ZERO AIR LEAKAGE at 75 Pa <sup>Δ</sup>                              |                              |
| INSULATION VALUES                 | ASTM C – 518                      | k Factor  | R Value                      |
| AGED 180 days                     |                                   | BTU-in / ft <sup>2</sup> -°F-hr                                     | ft <sup>2</sup> -°F-hr / BTU |
| 1 inch                            |                                   | 0.268   | 3.73                         |
| 3.5 inches                        |                                   | 0.301   | 11.64                        |

\* Typical data as obtained from laboratory samples and value may vary under actual field conditions.

† These flame-spread ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.

<sup>Δ</sup> The International Residential Code defines air impermeable as having less than 0.02 L/m-s at 75 Pa. Bayseal™ 0.5 qualifies under this definition as an air barrier.

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