



DEMILEC (USA) LLC.
POLYURETHANE SYSTEMS MANUFACTURER

DEMILEC B352-0 / A100-4

POUR-IN-PLACE SYSTEM

TECHNICAL DATA SHEET

DEMILEC B352-0 / A100-4 is a rigid two component urethane foam system, specially formulated for pour-in-place applications. This system, utilizing the environmentally friendly blowing agent 245fa, exhibits good flow characteristics and mixes well using a high or low-pressure machine.

DEMILEC B352-0 / A100-4 meets the requirements of the US Coast Guard Specification "Code of US Regulation": Navigation and Navigable Waters Article # 183-114. This test was performed at an independent laboratory.

Applications :

- Flotation
- Insulating panels

Important:

It is important to monitor the in-place density of the foam as stated in the processing recommendations (see reverse page). A lower density will result in poor physical properties. Furthermore, proper temperature (110 – 130⁰F) of the substrates is critical in order to obtain a good adhesion of the foam to the substrate. It is the user's responsibility to test the product to ensure it performs to their expectations.

The shelf life of the resin B352-0 is 12 months from the date of manufacture if stored in closed original containers at room temperature.

The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, express or implied, including any warranty or merchantability or fitness, nor is protection from any law patent inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials. Polyurethane foam is combustible. It is recommended that the user read the material safety data sheets on the liquid chemicals before using the products.

DEMILEC B352-0 / A100-4

LIQUID COMPONENT PROPERTIES

| PROPERTIES | ISOCYANATE | RESIN |
|------------------------|------------|-----------|
| Colour | Brown | Yellowish |
| Viscosity @ 25°C (cps) | 150-350 | 400-700 |
| Specific gravity | 1.20-1.24 | 1.11-1.15 |
| Mixing ratio (weight) | 110 | 100 |
| Mixing ratio (volume) | 100 | 100 |

PROCESSING RECOMMENDATIONS

| | | |
|--------------------------------------|----------------------------------|------------------------|
| Type of machine | A high or a low pressure machine | |
| Isocyanate temperature | 20-23°C | 68-73°F |
| Resin temperature | 20-23°C | 68-73°F |
| Mold or panel temperature | 43-54°C | 110-130°F |
| Minimum in-place density recommended | 40 kg/m ³ | 2.5 lb/ft ³ |

REACTIVITY PROFILE

| | HANDMIX* | MACHINE** |
|---|-----------|-----------|
| Cream time (sec.) | 20-25 | 10-14 |
| Gel time (sec.) | 150-165 | 75-90 |
| Tack free time (sec.) | 300-400 | 190-260 |
| Free rise density (lb/ft ³) | 2.00-2.15 | 1.90-2.05 |

*Mixer 2 inches @ 2500 RPM for 10 seconds, liquid components at 20°C

** High pressure machine (2500 psi), liquid components at 23°C

PHYSICAL PROPERTIES

| DESCRIPTION | RESULTS | ASTM |
|---|--|--------|
| Density (in-place) | 40 kg/m ³ 2.50 lb/ft ³ | D 1622 |
| Thermal resistance R (2 in. thick panel, 2 days @ 23°C) | 1.23 m ² .°C / W 7.0 ft ² .h.°F / btu.in | C 518 |
| Thermal conductivity K (2 in. thick panel, 2 days @ 23°C) | 0.811 W / m ² .°C 0.143 Btu.in / ft ² .h.°F | C 518 |
| Thermal resistance R (2 in. thick panel, 90 days @ 23°C) | 1.15 m ² .°C / W 6.5 ft ² .h.°F / btu.in | C 518 |
| Thermal conductivity K (2 in. thick panel, 90 days @ 23°C) | 0.873 W / m ² .°C 0.154 Btu.in / ft ² .h.°F | C 518 |
| Compressive strength (parallel) | 162 kPa 23.5 psi | D 1621 |
| Dimensional stability (% vol. change @ 28 days) 80°C, ambient relative humidity 70°C, 90% relative humidity -30°C, ambient relative humidity | 0.19 2.71 -0.59 | D 2126 |
| Flotation test (% absorption) Gasoline (30 days) Oil (30 days) Bilgecleaner (30 days) Gas Vapour (30 days) | 0.25 -0.31 0.74 0.30 | D 2842 |

These physical properties were obtained with the processing recommendations listed above.