



Epoxy &
Polyurethane
Manufacturing and
Research

TECHNICAL BULLETIN
EPMAR® SS2014
Water Blown Polyether Foam

Description

EPMAR® SS2014 (FRD:14 pcf, Gray) is a hard rigid foam with a long cream time designed for hand or machine-processing. A hard and tough skin makes this foam ideal for uses such as artificial rocks and picture flames, decorative parts and other similar applications. A flame retardant system is also available.

Typical Uncured Properties

| | Part A (Isocyanate) | Part B (Polyol) |
|---|---------------------|-----------------|
| Color | Brown | Light Black |
| Solids Content by Weight | 100% | 100% |
| Mix Ratio by Weight | 52 | 48 |
| Specific Gravity @ 25°C. | 1.24 | 1.06 |
| Viscosity, cps at 25°C RVF, #1 @ 20 rpm | 300 | 1,300 |
| Shelf Life @ 60-90°F. Months (Minimum from date of Shipment) | 6 | 6 |
| Note: Values not intended for use in specification preparation | | |

Processing Information/Characteristics (100 grams total mix, A & B @75°F.)

| | |
|--------------------------------|------------------------------|
| Temperature of Component | 75 - 110°F. |
| Mold Temperature | 110 - 130°F. |
| Cream Time | 2 - 2.5 minutes |
| Rise Time | 9 minutes |
| Tack Free Time | 8 minutes |
| Demold Time | 30 minutes |
| Post-Cure Time | 24 hours at room temperature |
| Free-Rise Density | 13.5 - 14.5 pcf. |
| Typical Property @ ASTM D-2240 | |
| Hardness Shore D | 42-45 |
| Free-Rise Density | 14-15 pcf. |

Mold Preparation

Recommended mold release - For best results, the molding surface must be free from rust, scale, and other foreign matter. To eliminate material loss and flash, the mold must be closed fitting at all seams. Apply a thin, uniform coating of a recommended mold release, and heat the mold to the recommended temperature. It may be necessary to reapply the mold release after every molding cycle. Clean the mold occasionally to eliminate excessive buildup of the mold release.



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Determination of Pour Size

1. Determine the volume of the molds.
2. Select the proper density according to the desired physical properties. Recommended molded density 30 pcf.
3. Multiply the mold volume (in cubic feet) by desired density (in lbs./cu.ft.).

For example:

Mold size (12.5"X16.5"X1.50") = 0.18 cubic foot

Desired density = 30 lbs./cubic foot

Therefore $0.18 \times 30 = 5.4$ lbs. of material.

Note: When hand-mixing, allow approximately 10% for material holdup in the mixing container.

Therefore, $5.4 \text{ lbs.} + 0.54 = 5.94 \text{ lbs.}$

Ratio, A/B = 52/48 by weight

Amount of "A": $5.94 \times 0.52 = 3.09 \text{ lbs.}$ or 1403 grams

Amount of "B": $5.94 \times 0.48 = 2.85 \text{ lbs.}$ or 1294 grams

Contact EPMAR for any additional application information.

Warranty

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of this product and no warranty is made as to the results of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product, which is proved to be defective. Any claim of defective product must be received in writing within one (1) year from date of shipment. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.

Service is part of our formula

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