

Styropor® expandable polystyrene

P-240AH Product



The Chemical Company

Products and their uses

Styropor P-240AH can be used in a wide variety of applications requiring non flame rated material including shape molded packaging parts, loose fill and block molding for cut in place packaging applications. Material can be used for low to mid-range and high densities with excellent fusion and short cycle time.

Styropor P-240AH product is compatible with many anti-stat, mineral oil and color additives added during processing.

P-240AH product does not contain chlorofluorocarbons or flame retardants.

Description

Regular non-modified expandable polystyrene (EPS) containing approximately 5.2 – 5.8 wt% pentane as the blowing agent. The P-240AH is supplied as spherical beads with a bulk density of approximately 40 lbs/ft³ (640 kg/m³).

| Product Specifications | | |
|------------------------|----------------------------------|-------------------------------------|
| Bead Size (mm) | Application | Pre-puff Age (dependent on density) |
| 0.85 – 1.70 | General packaging, Block / Shape | 4 to 24 hours |

Typical expanded density range*

1.0 – 3.0 lbs/ft³ (18 – 48 g/L)

*(Typical densities are first and/or double pass pre-expansion. Results depend on equipment type and processing conditions.)

Processing

Polystyrene foam made from Styropor P-240AH product is produced in three stages: Pre-expansion, intermediate aging and molding. Full details are given in the brochure *Processing Styropor*.

Pre-expansion

The minimum density achievable depends on the pre-expansion equipment and technique used. With Styropor P-240AH product, batch expanders are recommended to obtain bulk densities shown above. Pre-expander pressures range from 0.15 – 0.35 bar. Care should be taken during expansion, as prolonged steam times will result in excessive loss of pentane and ultimate difficulty in achieving acceptable fusion during molding. In continuous expanders Styropor P-240AH product may achieve densities of 1.15 pcf or lower, depending on equipment and conditions.

Intermediate aging

The minimum recommended pre-puff intermediate aging period for low density shape molding of this product is four (4) hours depending on density and ambient temperature. Care should be taken when aging products in excess of twenty-four (24) hours. Steam pressures and steam time required to achieve bead bonding may increase in order to obtain acceptable or quality moldings.

Molding

This product is intended for molding on automatic molding machines. Molding can be accomplished under a wide range of conditions and densities.

Packaging and storage

Styropor P-240AH product is packaged in Flexible Intermediate Bulk Containers of 1,763 lbs. (800 kgs). Plastic liners are used to maintain product shelf life by retaining the blowing agent.

Styropor products should be stored indoors in a cool place (maximum temperature 80°F). In the unopened bulk containers, the typical shelf life after receipt is 30-60 days. The containers should be protected from rain, snow, frost, direct sunlight and mechanical damage.

Safety

Styropor products and the finished foam products should not be exposed to ignition sources (including open flame, sparks, or electrostatic discharges) during storage, processing, shipment and application. Adequate ventilation in all processing areas must be provided to prevent hazardous accumulations of hydrocarbon vapors.

For complete safety precautions and recommendations, refer to the Styropor bulletin S-6 *Fire Safety Precautions in Styropor Processing Plants* and appropriate Material Safety Data Sheets.

Important: While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCT DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. Further, you expressly understand and agree that the descriptions, designs data and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data, and information given or results obtained, all such being given and accepted at your risk.

Values shown are based on limited testing and are not intended to be used in establishing maximum or minimum ranges for specification purposes.

STYROPOR is a registered trademark of BASF AG.

Copyright© 2012- BASF Corporation

Useful link:

<http://www.StyroporEPS.com>

BASF Corporation
1609 Biddle Avenue
Wyandotte, MI 48192
973-907-6377

<http://www.basf.com>



The Chemical Company