



Flint Hills Resources Expandable Polystyrene Grade 55

I. GENERAL DESCRIPTION

Grade 55 Flint Hills Resources expandable polystyrene is a regular grade EPS for shape molding. Grade 55 resin is a fast cycling/molding product designed for high productivity and molded parts requiring good surface finish over a broad range of densities. Grade 55 Flint Hills Resources Expandable Polystyrene resin complies with FDA regulations 21 CFR 177.1640 "Polystyrene and rubber-modified polystyrene" and 21 CFR 174.5 requirements of intended use set forth in Federal Food Drug and Cosmetic Act, as amended and all applicable food additive regulations, provided they are used for the intended purpose under the conditions of Good Manufacturing Practice (GMP).

II. PROPERTIES OF GRADE 55 EXPANDABLE POLYSTYRENE

Type	Bead Size	Typical* Unexpanded Particle Size, (mm)	Blowing Agent Level (%)	Recommended Density Range** (lbs./ft ³)	Method of Processing
5355	B	0.700 – 1.400	Low 3.7 ± 0.4	1.25 – 2.00	SHAPE
6355	C	0.400 – 0.800	Low 3.7 ± 0.4	1.25 – 2.00	SHAPE
5455	B	0.700 – 1.400	Low 4.6 ± 0.4	1.25 – 2.00	SHAPE
6455	C	0.400 – 0.800	Low 4.6 ± 0.4	1.25 – 2.00	SHAPE

*Typical indicates at least 95% of product falls within the given particle size range

**Low density on low pentane products attainable with batch or double pass pre-expansion

Flint Hills Resources Expandable Polystyrene Grade 55

III. APPLICATIONS

Grade 55 regular expandable polystyrene resin is formulated for molded parts requiring good surface finish over a board range of densities. It is specifically designed for use in packaging, food containers, and/or leak resistant containers such as coolers. Flint Hills Resources encourages its customers to review their specific applications to ensure utilization of the appropriate Flint Hills Resources product.

To help assure that Flint Hills Resources products are not misapplied or used in any manner which may not have been intended or tested, we suggest a review of proposed applications with Flint Hills Resources personnel to assist in dealing with product approvals, processing, safety, and environmental considerations. Your Flint Hills Resources Sales Representative can arrange for the proper contact with Flint Hills Resources for such review.

IV. SHIPPING AND HANDLING PRECAUTIONS

Expandable polystyrene contains a flammable blowing agent and is consequently regulated by the United States Department of Transportation as a CLASS 9-MISCELLANEOUS MATERIAL. These products are shipped in regulation UN 2211, 2204 - pound flexible bulk packages. Each container is lined with a hydrocarbon barrier liner to decrease the emissions of volatiles. **For further information, please refer to Technical Bulletin TEC-I-002, "Recommended Safety, Health and Environmental Guidelines" and to the Flint Hills Resources Material Safety Data Sheet for product code "Grade 55" name "Expandable Polystyrene (EPS),"** a copy of which is provided with the first shipment or upon request. Printed, Fax or Electronic File copies of individual MSDS may be requested by contacting our Customer Service representatives, Mon – Fri 8:00 AM to 5:00 PM EST, at 1-800-972-1010 or by going to our website, www.FHR.com.

Flint Hills Resources Expandable Polystyrene Grade 55

V. EXPANDABLE POLYSTYRENE MANUFACTURING LOCATIONS

Peru, Illinois

The information contained herein is provided for general purposes only. By providing the information contained herein, Flint Hills Resources, LP, makes no guaranty or warranty and does not assume any liability with respect to the accuracy or completeness of such information, or the product results in any specific instance and hereby expressly disclaims any implied warranties of merchantability or fitness for a particular purpose, or any other warranties or representations whatsoever, expressed or implied. Nothing contained herein shall be construed as a license to use the products of Flint Hills Resources, LP in any manner that would infringe any patent.