



# EXPANDABLE POLYSTYRENE GRADE 55 WITH EVRGREEN® TECHNOLOGY INSIDE TDS (5455+; 6455+; 5355+; 6355+)

## I. GENERAL DESCRIPTION

Epsilyte Grade 55+ with EVRgreen® technology inside expandable polystyrene is a Biodegradable<sup>1</sup> regular grade EPS for shape molding. Grade 55+ resin is a fast aging/molding product designed for high productivity and molded parts requiring a quality surface finish over a broad range of densities. Regular Grade 55+ Epsilyte Expandable Polystyrene resin complies with FDA regulations 21 CFR 178.3010 "Adjuvant Substances Used in the Manufacture of Foam Plastics", 21 CFR 177.1640 "Polystyrene and rubber-modified polystyrene" and 21 CFR 174.5 "General Provisions Applicable to Indirect Food Additives" 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).

<sup>1</sup> EVRgreen® is shown to biodegrade 92% over four years under conditions that simulate both wetter and biologically active landfills using the ASTM D5511 test, which may not exist in your area. The stated rate and extent of degradation do not mean the product will continue to degrade.

+ All references to Grades 5455, 6455, 5355 and 6355 in this TDS refer to Epsilyte's Grade 55 product with EVRgreen® technology inside.

## II. PROPERTIES OF FOOD SAFE REGULAR GRADE EXPANDED POLYSTYRENE

Type	Bead Size	Typical* Unexpanded Particle Size (mm)	Blowing Agent (%)	Recommended Density Range** (lb/ft <sup>3</sup> )	Method of Processing and Benefits***
5355+	B	0.70 – 1.40	3.7 ± 0.4	1.25 – 2.00	Shape
6355+	C	0.40 – 0.80	3.7 ± 0.4	1.25 – 2.00	Shape
5455+	B	0.70 – 1.40	4.6 ± 0.4	1.25 – 2.00	Shape
6455+	C	0.40 – 0.80	4.6 ± 0.4	1.25 – 2.00	Shape

\*Typical indicates at least 92% of the product falls within the given particle size range  
 \*\* Low density on low pentane products attainable with batch or double pass pre-expansion  
 \*\*\*Under certain conditions Grade 55 can also be block molded



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### III. APPLICATIONS

Grade 55<sup>+</sup> expandable polystyrene resin is formulated for molded parts requiring an excellent surface finish over a broad range of densities. It is specifically designed for **packaging, food containers, and/or leak-resistant containers such as coolers**. Epsilyte encourages its customers to review their specific applications to ensure the utilization of the appropriate Epsilyte product.

To assure that Epsilyte 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 Epsilyte personnel to assist in dealing with product approvals, processing, safety, and environmental considerations. Your Epsilyte Sales Representative can arrange for the proper contact with Epsilyte 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 the Epsilyte Safety Data Sheet for product code "5455<sup>+</sup>; 6455<sup>+</sup>; 5355<sup>+</sup>; 6355<sup>+</sup>", a copy of which is provided with the first shipment or upon request. Printed, or Electronic File copies of individual SDS may be requested by contacting our Customer Service representatives, Mon – Fri 8:00 AM to 5:00 PM CST, at 1-815-224-1525.

### V. MANUFACTURING LOCATION

Peru, Illinois

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