

Product description:

R-Series (Regular) products include all NexKemia General Purpose expandable polystyrene resins (EPS) made by polymerization. These resins are designed for various packaging applications requiring insulation and protection. Low pentane (blowing agent) options are available. The R Series products can achieve EPS density targets from 0.90 to 4.0 pcf and are suitable for a wide range of packaging applications.

R-Series EPS is a suitable solution for many applications including but not limited to:

- Bio-Pharmaceutical insulated shippers
- Fresh & frozen food (including fish & meat) insulated shippers
- Multi-use insulated coolers
- Seedling tray
- High strength protective packaging & Agricultural containers
- Automotive & Appliance protective packaging
- Plus, many additional application

To select the best product for your application, see the **NexKemia Product Chart** and please contact your NexKemia representative.

Compliance & Documentation:

NexKemia R-Series EPS is manufactured in compliance with:

- FDA regulations for use as direct food contact items, per 21 CFR, Part 177, Subpart B, Section 177.1640 entitled "Polystyrene and Rubber Modified Polystyrene".
- Europe Union regulation for use as direct food contact items (EU 10/2011)
- REACH Directive for regulation of Substances of Very High Concern (SVHC)
- RoHS Directive for regulation of Heavy metals and specific flame retardants

For additional product information please refer to the **NexKemia Product Chart** or contact your NexKemia representative.

Technical Data:

NexKemia R Series Regular EPS	Typical Pentane Value (%wt.)	Unexpanded Beads Size Distribution (mm)	Recommended Expanded Density Range (pcf)
Regular Grades			
R641E	4.8	1.0 – 1.7	0.90 – 1.2
R441E	4.8	0.7 – 1.1	1.00 – 2.5
R341E	4.8	0.4 – 0.7	1.10 – 3.0
Regular Low Pentane Grades			
R539C	3.5	0.6 – 1.7	1.50 – 4.0
R239C	3.5	0.4 – 0.6	1.50 – 4.0

Processing:

Pre-Expansion	Maturation Time	Molding
<p>Single pass expansion: to optimize pre-expansion and achieve a homogeneous density from bead to bead, a slower expansion rate is recommended. By optimizing the expansion cycle, the uniformity of the pre-expanded beads will help to provide more consistent and uniform molding.</p> <p>Second pass: to achieve lower densities (<0.75 pcf) it is recommended that the products be pre-expanded in two stages</p>	<p>Aging times may range between 4 to 48 hours. The maturation time will vary according to the product used and the density targeted. Please contact your sales or technical representative for more details.</p>	<p>NexKemia EPS is designed to be molded with commercially available EPS processing machinery (horizontal and vertical block molds and shape presses).</p> <p>Regrind (EPS foam) provided by the customer may be incorporated into fresh material at rates of up to 50%, depending on the product grade, the regrind quality, and the condition of the processing equipment.</p>

General Information

Product Packaging

- All **Nexkemia EPS** materials are packaged in 1,000 Kgs. (2,205 Lbs.) Super-sacks. A typical full truckload shipment consists of 20 Super-sacks of eps material with a total delivered weight of 20,000 Kgs. (44,100 Lbs.) per truckload.

Safety and Handling

- Electrostatic discharges may be generated during the use and manipulation of any EPS product.
- All metallic equipment and machinery should be grounded in accordance with all local government safety ordinances.
- Only use spark-proof tools in all areas where EPS is stored and processed.
- For more information, refer to the NexKemia Safety Data Sheet (SDS) prior to use.
- Upon delivery, trailer and/or container should be opened and allowed to vent for a minimum of one hour before unloading.

Storage

All EPS materials should be:

- Stored in unopened containers in dry and well-ventilated areas. The recommended storage temperature range for EPS is 20-25°C (68-77°F).
- Protected against unsuitable weather conditions and direct sun light.
- Kept away from heat, sparks, flame, and other sources of ignition.

Shelf Life

- In order to attain and maintain the ideal product performance of NexKemia EPS, it is recommended to process all product materials within 12 months of the date of fabrication.
- Any opened containers should be closed properly to minimize excess air in the product bag and should also be processed within a short period time.

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