

## Product description:

**R Series (Regular)** products include all NexKemia General Purpose expandable polystyrene resins (EPS) designed for insulated medicine and food shippers, high strength protective packaging and multi-use coolers. 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)
<b>Regular Grades</b>			
<b>R641E</b>	4.8	1.0 – 1.7	0.90 – 1.2
<b>R441E</b>	4.8	0.7 – 1.1	1.00 – 2.5
<b>R341E</b>	4.8	0.4 – 0.7	1.10 – 3.0
<b>Regular Low Pentane Grades</b>			
<b>R549C</b>	4.0	0.6 – 1.7	1.25 – 4.0
<b>R249C</b>	4.0	0.4 – 0.6	1.25 – 4.0
<b>R539C</b>	3.5	0.6 – 1.7	1.50 – 4.0
<b>R239C</b>	3.5	0.4 – 0.6	1.50 – 4.0

### Processing:

Pre-Expansion	Maturation Time	Molding
<p><b>Single pass expansion:</b> 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><b>Second pass:</b> to achieve lower densities (&lt;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><b>NexKemia EPS</b> 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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