Product description:

M (Modified) Series Products include all NexKemia flame retardant expandable polystyrene resins (EPS). Multiple pentane (blowing agent) options and bead size ranges are available to achieve EPS density targets from 0.75 to 4.0 pcf. **M Series** products are suitable for a wide range of applications and are optimized for low or high densities, pre-puff maturation and molding cycle time optimization, surface finish quality, etc.

Applications:

M Series EPS can be used in many applications including, but not limited to:

Block Molding	Shape Molding
➢ Insulation board (low to high density) for Building & Construction projects ➢ Structural Insulated Panels (SIP's) ➢ Protective Packaging ➢ Geofoam ➢ Suitable for use with recycled eps/regrind materials ➢ Bean Bag Furniture ➢ Many Additional Applications	➢ Insulated Concrete Forms (ICFs) ➢ Floor Heating Insulation ➢ Protective Packaging ➢ Automotive & Appliance Packaging ➢ Many Additional Applications

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

Technical Data:

NexKemia M Series Modified EPS	Typical Pentane Value (%wt.)	Unexpanded Beads Size Distribution (mm)	Recommended Expanded Density Range (pcf)
Modified Grades			
M664D	6.4	1.0 – 1.7	0.75 – 1.10
M464D	6.4	0.7 – 1.1	0.80 – 1.10
M465D	6.4	0.7 – 1.1	0.90 – 1.25
M364D	6.4	0.4 – 0.7	0.95 – 1.25
M363D	6.4	0.4 – 0.7	0.95 – 1.40
M365D	6.4	0.4 – 0.7	1.00 – 4.00
M547E	4.6	1.0 – 1.7	1.20 – 4.00
M548D	4.6	1.0 – 1.7	0.90 – 1.25
M544D	4.6	1.0 – 1.7	0.95 – 1.25
M444D	4.6	0.6 – 1.1	1.00 – 1.40
M447E	4.6	0.6 – 1.1	1.20 – 4.00
M448P	4.6	0.6 – 1.1	1.20 – 4.00
M244D	4.6	0.4 – 0.6	1.10 – 4.00
MG44C	4.7	0.4 – 1.7	1.00 – 4.00
Modified Low Pentane Grades			
M537E	3.9	1.0 – 1.7	1.50 – 4.00
M334E	3.9	0.4 – 0.7	1.20 – 4.00
MC34E	3.9	0.4 – 1.7	1.00 – 2.00
MC37E	3,9	0.4 – 1.1	1.50 – 4.00

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

Compliance & Documentation:

When properly manufactured, EPS finished goods produced with **NexKemia M Series** products comply with the following:

- CAN/ULC S701.1: Type 1, 2
- ASTM C578: Type I, II, VIII, IX, XIV and XV
- ASTM E84/ UL 723 Surface Burning Characteristics of Building Materials
- CAN/ULC S102.2 Surface Burning Characteristics of Building Materials and Assemblies
- UL 94: Flammability of Plastic Materials for Parts in Devices and Appliances testing
- ICC ESR- Thermal and moisture protection

NexKemia M Series EPS is manufactured to comply with:

- REACH Directive for regulation of Substances of Very High Concern (SVHC)
- RoHS Directive for regulation of Heavy metals and specific flame retardant

Processing:

Pre-Expansion	Maturation Time	Molding
• **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. • **Second pass:** to achieve lower densities (<0.75 pcf) it is recommended that the M Series high pentane products be pre-expanded in two stages.	• 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.	• **NexKemia M Series EPS** is designed to be molded with commercially available eps processing machinery (horizontal and vertical block molds and shape presses). • Customer recycled eps (i.e. regrind) may be added to the fresh material, up to 50% depending on the product grade used, the quality of regrind and the condition of the equipment involved

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.
- NexKemia M Series products contain a flame-retardant additive and are not suitable for food contact applications
- 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 it is shipped.
- 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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