

Adding value to your products - worldwide



SEPTON™, HYBRAR™ and KURARITY™ are Kuraray's trademarks for thermoplastic elastomers (TPEs). They are a special type of synthetic rubber that combine the elastic properties of rubber with the benefits of thermoplastics. They can be processed into almost any shape. TPEs have a pleasantly soft touch and good wear comfort. They also increase shock absorption. What's more, they are recyclable. Kuraray's TPEs are environmentally sound, free of PVC and do not need additional plasticizers. They are used for an extremely wide range of applications including many plastic compounds for every-

day products. Examples include toys, toothbrushes, medical tubes, sports equipment, sealants and car tires. The flexible types are used as lubricant additives and base components in adhesives. Kuraray is a leading supplier of TPEs and offers customers more than 30 different grades with individual properties.

For further information, please contact your local Kuraray office or visit our website.

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Disclaimer: Precautions should be taken in handling and storage. Please refer to the appropriate Safety Data Sheet for further safety information. In using KURARITY™, please confirm related laws and regulations, and examine its safety and suitability for the application. For medical, health care and food contact applications, please contact your Kuraray representative for specific recommendations. KURARITY™ should not be used in any devices or materials intended for implantation in the human body. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement.



KURARITY™

Acrylic Block Copolymer

Kuraray's Acrylic Block Copolymer KURARITY™

Kuraray manufactures innovative thermoplastic elastomers including KURARITY™.

KURARITY™

KURARITY™ is a new series of acrylic block copolymers produced using Kuraray's unique anionic living polymerization technology which combines various (meth) acrylates into ABA or AB type block copolymers.

This controlled polymerization process enables KURARITY™ to remain exceptionally clean with minimal residual monomer or oligomer when compared to conventional acrylic polymers produced using radical polymerization.

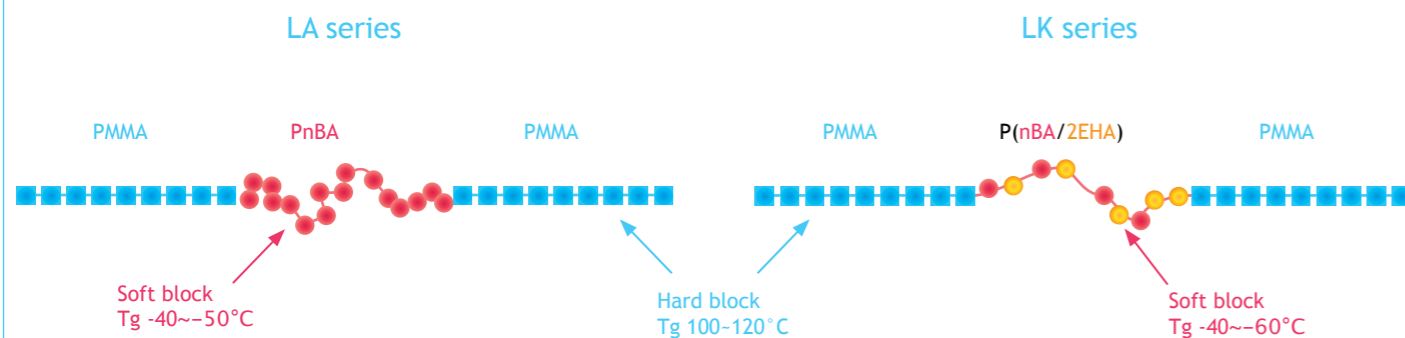
KURARITY™ is also referred to as MAM (Methyl-methacrylate-Acrylate-Methyl-methacrylate), and it consists of methyl methacrylate hard-blocks (PMMA-blocks) and an acrylic based soft-block (a PnBA-block or a P(nBA/2EHA)-block).

Due to this structure, this acrylic thermoplastic elastomer exhibits a variety of properties including excellent clarity, weather resistance, self-adhesion, and good compatibility with other polar materials.



KURARITY™ Families

Kuraray developed two families of KURARITY™ called LA series and LK series. LA series utilizes a PnBA mid-block while the LK series utilizes a P(nBA/2EHA) mid-block.



Application possibilities with KURARITY™

Modifier



Characteristics

- Improve impact resistance as well as flowability
- High polarity, and improve adhesion to polar plastics in over molding and co-extrusion
- Improve elasticity and toughness

Applications

- Polar resins (PC/ABS, PC, PBT, PMMA, PLA, ABS, PVC etc.)
- Styrene elastomer based compounds (for over molding)
- Pressure sensitive adhesive (solvent-based, hot-melt)
- Adhesives (thermoset, UV curable)
- Ink
- Paint
- Coatings

Adhesive



Characteristics

- Self-adhesion which leads to eliminating the drying and curing process
- Low VOC and ultimately less odor without solvent and residual monomer
- Minimal residuals on the surface of the adherent
- Extremely low migration without tackifier
- Excellent clarity for transparent substrates
- Excellent weather-ability
- No hydrolysis degradation

Applications

- Base polymer for hot-melt adhesives
- Surface protection films
- Industrial tapes
- Pressure-sensitive labels
- Removable tapes

Molding Materials



Characteristics

- Excellent clarity
- PMMA-like high gloss
- Excellent flexibility
- Excellent mold-ability (injection and extrusion molding)
- Excellent two-color moldability with PC, ABS, PVC and other polar resins
- Excellent paint-ability and print-ability

Applications

- Consumer goods
- Automotive interior parts
- Light guides