

## Thermoplastic Elastomers for Regulated Markets

For decades, the Monprene® TPE product line has been the premier material choice for consumer product designers, OEMs, and processors. Today the latest enhancement to the Monprene portfolio is the RG series of standard products, specifically designed for food contact applications, and other regulated markets such as children's and infants products. These grades are available from 40 to 80 Shore A and are suitable for molding and extrusion.

### Regulatory Compliance

Every ingredient used to manufacture the Monprene RG series of standard products is "Generally Recognized as Safe" (GRAS) according to the Federal Food, Drug, and Cosmetic Act, subject to an effective Food Contact Notification (FCN), Threshold of Regulation (TOR), or is identified in at least one section of Title 21 of the Code of Federal Regulations published by the U.S. Food and Drug Administration (FDA).

Food Type	Single Use*	Repeat Use*
Dry Food	✓	✓
Acidic	✓	✓
Aqueous	✓	✓
Alcoholic	✓	✓

\*As defined by US and European Regulations

In addition, these grades comply with European Directives for Food Contact, EU 1935/2004 and PIM10/2011, as well as the Toy Safety Directives: 2009/48/EC and EN-71-3. Compliance with these various regulations accelerates our customers' speed to market with new products.



*For food contact applications and housewares, the Monprene RG series offers excellent barrier properties, adhesion to polyolefins and is dishwasher safe. Applications include: food saver seals, utensil grips, and gaskets, knobs and anti-skid parts for kitchen appliances.*

### Unsurpassed Regulatory Support

Teknor Apex employs a staff of product safety experts dedicated to global regulatory affairs. This team utilizes an integrated system to ensure the integrity of every raw material and finished good, in all of our manufacturing plants in North America, Europe, and Asia. Our expertise in this area is integral to the success of Monprene TPEs used in regulated markets.

- PVC and Phthalate free
- Latex free
- BPA free
- RoHS Compliant
- REACH SVHC Compliant

### Comprehensive Portfolio of TPEs

- Styrenic Compounds (TPE-S)
- Thermoplastic Vulcanizates (TPE-V)
- Olefinic Compounds (TPE-O, OBC)
- Specialty Alloys

### Customized Solutions

Monprene standard grades are developed to address today's consumer market requirements, however, customized solutions can be built based on your specific needs.



*The Monprene RG Series offers excellent bite and tear resistance for children and infants products such as toys, teething rings, and non-spill lids.*

### Application Development Support

In addition to compounding experts, our technical support includes a team of application development engineers committed to aid our customers in process development and product launches, by helping processors run our products more efficiently and cost effectively.

### Monprene RG Series: Typical Properties

Property	Test Method and Condition	Units	RG-10140	RG-10150	RG-10160	RG-10170	RG-10180
Hardness	ISO 868 5 sec del	Shore A	40	50	60	70	80
Specific Gravity	ISO 1183	-----	0.89	0.89	0.89	0.89	0.89
Tensile Stress (break)	ISO 37 (across flow)	Psi (MPa)	725 (5.0)	986 (6.8)	1450 (10.0)	1870 (12.9)	2220 (15.3)
Tensile Elongation (break)	ISO 37 (across flow)	%	860	840	850	850	830
Tensile Stress (100% strain)	ISO 37 (across flow)	Psi (MPa)	73 (0.5)	126 (0.9)	220 (1.5)	307 (2.1)	493 (3.0)
Compression Set	ISO 815 Type A 22 hrs at 70°C	%	23	25	29	33	37
Tear Strength	ISO 34-B (flow direction)	kN/m	12	18	25	35	45
Viscosity	ASTM D3835 206 1/s, 200°C	Pa.s	215	225	230	245	260

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**Teknor Apex Company**  
 505 Central Avenue, Pawtucket, RI 02861  
 Phone: 401-725-8000 Toll Free: 800-556-3864  
 www.teknorapex.com info@teknorapex.com