

# Monprene® SP-19947

### Teknor Apex Company - Thermoplastic Elastomer

Friday, June 30, 2017

#### **General Information**

#### **Product Description**

Monprene SP-19947 is a high performance thermoplastic elastomer designed for a variety of consumer product applications including sporting goods. Monprene SP-19947 is a low hardness, low density medium flow UV stabilized grade that is designed for injection molding but can be extruded.

General			
Material Status	Commercial: Active		
Availability	<ul><li>Africa &amp; Middle East</li><li>Asia Pacific</li></ul>	<ul><li>Europe</li><li>Latin America</li></ul>	North America
Features	<ul> <li>Chemical Resistant</li> <li>General Purpose</li> <li>Good Adhesion</li> <li>Good Colorability</li> <li>Good Flexibility</li> <li>Good Moldability</li> </ul>	<ul><li>Good Processability</li><li>Good Toughness</li><li>Low Density</li><li>Low Hardness</li><li>Low Specific Gravity</li><li>Lubricated</li></ul>	<ul><li>Medium Flow</li><li>Resilient</li><li>Slip</li><li>Sunlight Resistant</li><li>UV Resistant</li><li>Without Fillers</li></ul>
Uses	<ul><li>Consumer Applications</li><li>Flexible Grips</li><li>General Purpose</li></ul>	<ul><li> Overmolding</li><li> Rubber Replacement</li><li> Soft Touch Applications</li></ul>	Sporting Goods
RoHS Compliance	<ul> <li>RoHS Compliant</li> </ul>		
Appearance	<ul> <li>Clear/Transparent</li> </ul>	<ul> <li>Colors Available</li> </ul>	Natural Color
Forms	• Pellets		
Processing Method	<ul> <li>Extrusion</li> </ul>	Injection Molding	

ASTM & ISO Properties 1				
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	0.890		ASTM D792	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ASTM D1238	
Elastomers	Nominal Value	Unit	Test Method	
Tensile Stress <sup>2</sup>			ASTM D412	
Across Flow: 100% Strain	189	psi		
Flow: 100% Strain	268	psi		
Tensile Stress <sup>2</sup>			ASTM D412	
Across Flow: 300% Strain	284	psi		
Flow: 300% Strain	358	psi		
Tensile Strength <sup>2</sup>			ASTM D412	
Across Flow : Break	978	psi		
Flow : Break	469	psi		
Tensile Elongation <sup>2</sup>			ASTM D412	
Across Flow : Break	790	%		
Flow : Break	540	%		
Tear Strength <sup>2</sup>		上指限	ASTM D624	
Across Flow	139	ibt/in	政分析519	
Flow	· 新型MS	lbf/in爱师和21	-5899	
Compression Set <sup>3</sup>	TEKNOR APEX TEKNOR APEX TEKNOR APEX 139 teknorapex shshsizo	加联系电阻.	ASTM D395B	
73°F, 22 hr	KNOR shshs 20	%		
158°F, 22 hr	TEKnorape 48	%		

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Hardness	Nominal Value Unit	Test Method
Durometer Hardness		ASTM D2240
Shore A, 1 sec, Injection Molded	50	
Shore A, 5 sec, Injection Molded	47	

#### **Legal Statement**

The information and recommendations contained in this bulletin are, to the best of our knowledge, accurate and reliable but no guarantee of their accuracy is made. All products are sold upon condition that purchasers shall make their own tests to determine the suitability of such products for their particular purposes and uses and purchaser assumes all risks and liability for the results of use of the products, including use in accordance with seller's recommendations. Nothing in this bulletin constitutes permission or a recommendation to practice or use any invention covered by any patent owned by this company or others. There is no warranty of merchantability and there are no other warranties for the products described. For detailed Product Stewardship information, please contact us. Any product of Teknor Apex, including product names, shall not be used or tested in medical or food contact applications without the prior written acknowledgement of Teknor Apex as to the intended use. Please note that some products may not be available in one or more countries.

	Processing Information	
Injection	Nominal Value	Unit
Rear Temperature	360 to 450	°F
Middle Temperature	370 to 460	°F
Front Temperature	380 to 470	°F
Nozzle Temperature	390 to 480	°F
Processing (Melt) Temp	390 to 480	°F
Mold Temperature	95 to 120	°F
Injection Pressure	200 to 800	psi
Injection Rate	Fast	
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in
njection Notes		
Drying is not necessary. However, if moisture is a pro-	blem, dry the pellets for 2 to 4 hours at 150°F (6	5°C).
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	360 to 450	°F
Cylinder Zone 2 Temp.	370 to 460	°F
Cylinder Zone 3 Temp.	380 to 470	°F
Cylinder Zone 4 Temp.	380 to 470	°F
Cylinder Zone 5 Temp.	390 to 480	°F
Die Temperature	390 to 480	°F

Screw Speed: 30 to 100 rpm

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Die C, 20 in/min

<sup>3</sup> Type 1

上海松鄉進化科技有限公司 上海松鄉進化科技有限公司 TEKNOR APEX 特诺尔爱佩斯 021-58958519 TEKNOrapex.shshsi.com 联系电话: 021

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### **Teknor Apex Company - Thermoplastic Elastomer**

Teknor Apex Company Corporate Headquarters

In U.S. for Vinyls, TPEs, Colorants, Engineered Thermoplastics (Chem Polymer) 505 Central Avenue

Pawtucket, Rhode Island 02861 U.S.

Phone: 401-725-8000 Fax: 401-725-8095

Toll Free (U.S. only) 800-556-3864

info@teknorapex.com

Teknor Apex U.K. Ltd.

Tat Bank Road
Oldbury, West Midlands B69 4NH England

Phone: (44) 121-665-2100 Fax: (44) 121-544-5530

etpsales@teknorapex.co.uk



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