Monprene® RG-14080

Teknor Apex Company - Thermoplastic Elastomer

Thursday, April 2, 2026

General Information

Product Description

The Monprene RG-14000 series is a group of high performance thermoplastic elastomers specifically designed for drinking water application. Monprene RG-14080 is a low density, high hardness grade with excellent adhesion to PP and complies with various US FDA and European regulations and directives for food contact and drinking water and is suitable for injection molding. Please contact Teknor Apex for a regulatory compliance letter.

General			
Material Status	• Preliminary Data		
Availability	• Europe		
Features	• Drinking Water Contact Acceptable • Food Contact Acceptable	• Good Colorability • Good Processability	• High Hardness • Low Density
Uses	• Fittings • Hose • Membranes	• Plumbing Parts • Potable Water Applications • Sanitary Products	• Valves/Valve Parts
Agency Ratings	• DVGW W270 • EU 10/2011	• FDA Food Contact • KTW	
Appearance	• Black	• Natural Color	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	23	g/10 min	ISO 1133
Molding Shrinkage - Flow [2] (0.0787 in, Injection Molded)	0.015	in/in	Internal Method
Molding Shrinkage - Across Flow [2] (0.0787 in, Injection Molded)	0.010	in/in	Internal Method
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			ISO 527
Across Flow : 50% Strain	464	psi	
Flow : 50% Strain	508	psi	
Tensile Stress			ISO 527
Across Flow : 100% Strain	508	psi	
Flow : 100% Strain	580	psi	
Tensile Stress			ISO 527
Across Flow : 300% Strain	682	psi	
Flow : 300% Strain	870	psi	
Tensile Stress			ISO 527
Across Flow : Break	2610	psi	
Flow : Break	1740	psi	
Tensile Elongation			ISO 527
Across Flow : Break	900	%	
Flow : Break	570	%	
Tear Strength			ISO 34-1
Across Flow	280	lbf/in	
Flow	217	lbf/in	
Compression Set (73°F, 70 hr)	29	%	ISO 815

Revision Date: 6/29/2020

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Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, 3 sec	80		
Shore D, 3 sec	26		

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	356 to 428	°F
Middle Temperature	374 to 446	°F
Front Temperature	392 to 464	°F
Nozzle Temperature	392 to 464	°F
Processing (Melt) Temp	392 to 464	°F
Mold Temperature	86 to 104	°F
Injection Rate	Moderate-Fast	

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 65 °C (150 °F).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	320 to 365	°F
Cylinder Zone 2 Temp.	356 to 383	°F
Cylinder Zone 3 Temp.	356 to 401	°F
Cylinder Zone 4 Temp.	356 to 401	°F
Cylinder Zone 5 Temp.	356 to 401	°F
Die Temperature	347 to 419	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm.

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Test plate: 150 mm x 100 mm x 2 mm

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

www.teknorapex.com
info@teknorapex.com

Teknor Apex B.V.

Brightlands Chemelot Campus Umonderbaan 22
6167 RD Geleen, Netherlands

Phone: +31 46 7020 950
Fax: +31 46 7020 990

www.teknorapex.com
tpe@teknorapex.com

Teknor Apex (Suzhou) Advanced Polymer Compounds Co. Pte. Ltd.

No. 78 Ping Sheng Road

Suzhou Industrial Park
Jiangsu, China 215126

Phone: (86) 512-6287-1550
Fax: (86) 512-6288-8371

www.teknorapex.com
infotaap@teknoapex.com

Teknor Apex Asia Pacific PTE. LTD.

41 Shipyard Road

Singapore 628134

Phone: (65) 6265-2544
Fax: (65) 6265-1821

www.teknorapex.com
infotaap@teknorapex.com

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