+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® WR-12058

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene WR-12058 is a high performance thermoplastic elastomer designed for a variety of consumer product applications, including writing instruments, requiring a soft, rubber-like feel. Monprene WR-12058 is a low density, medium hardness, medium flow grade available in NAT, BLK and colors, and is suitable for injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Adhesion • Good Colorability • Good Flexibility • Good Moldability	• Good Processability • Good Scratch Resistance • Good Tear Strength • Good Toughness • Low Blooming	• Low Density • Low Specific Gravity • Medium Flow • Medium Hardness • Resilient
Uses	• Consumer Applications • Flexible Grips • Gaskets • General Purpose	• Handles • Knobs • Overmolding • Rubber Replacement	• Soft Touch Applications • Tubing • Writing Instruments
RoHS Compliance	• RoHS Compliant		
Appearance	• Black • Blue	• Colors Available • Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.896		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.6	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	281	psi	
Flow : 100% Strain	480	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	1330	psi	
Flow : Break	711	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	740	%	
Flow : Break	440	%	
Tear Strength [2]			ASTM D624
Across Flow	166	lbf/in	
Flow	223	lbf/in	
Compression Set [3]			ASTM D395
73°F, 22 hr	16	%	
158°F, 22 hr	85	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec	64		
Shore A, 5 sec	61		

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

Injection Notes

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

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

[2] Die C, 20 in/min

[3] Type 1