+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-19350 NAT (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-19350 NAT is part of a series of adhesion-modified thermoplastic elastomers (available from 30 to 70 Shore A) designed for over-molding (insert and multi-shot) and co-extrusion onto polystyrene, including general-purpose PS (GPPS), high-impact PS (HIPS), and their blends. These materials exhibit dry haptics and are well suited for grips and other soft-touch parts. Monprene OM-19350 NAT is REACH-SVHC and RoHS compliant and offers several benefits including superior adhesion onto polystyrene and easy molding with a wide processing window.

General			
Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • BPA Free • Chemical Resistant • Conformable • Ductile • Excellent Processability	• Filled • Good Colorability • Good Flexibility • Good Flow • Good Impact Resistance • Good Moldability	• Halogen Free • High Elasticity • Low Hardness • Medium Density • Soft
Uses	• Bonding • Consumer Applications • Flexible Grips	• Household Goods • Housings • Industrial Applications	• Overmolding • Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.14		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (100% Strain)	140	psi	ASTM D412
Tensile Stress [2] (300% Strain)	230	psi	ASTM D412
Tensile Strength [2] (Break)	1100	psi	ASTM D412
Tensile Elongation [2] (Break)	710	%	ASTM D412
Tear Strength [2]	120	lbf/in	ASTM D624
Compression Set [3] (73°F, 22 hr)	24	%	ASTM D395B
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	54		
Shore A, 5 sec, Injection Molded	50		
Additional Information	**Nominal Value**	**Unit**	
Adhesion to HIPS			
Adhesion to PS			

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Processing Information		
Injection	**Nominal Value**	**Unit**
Rear Temperature	320 to 350	°F
Middle Temperature	340 to 370	°F
Front Temperature	360 to 390	°F
Nozzle Temperature	370 to 410	°F
Processing (Melt) Temp	370 to 410	°F
Mold Temperature	60 to 90	°F
Injection Pressure	200 to 1000	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).

For any overmolding process it is recommended that the process temperatures for the TPE material be set at least 50°F (10°C)higher than the melt temperature of the substrate material.

Notes

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

[2] Die C, 20 in/min

[3] Type 1