+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-19160 AP NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-19160 AP NAT XRD1 is part of a series of adhesion-modified thermoplastic elastomers (available from 40 to 70 Shore A) designed for over-molding (insert and multi-shot) and co-extrusion onto polyamide (Nylon), including: PA 6, PA66, PA12, etc. These materials exhibit dry haptics and low compression set are well suited for overmolded seals or grips. Monprene OM-19160 AP NAT XRD1 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 • Chemical Resistant • Conformable • Ductile • Filled • Good Colorability	• Good Compression Set • Good Flexibility • Good Flow • Good Impact Resistance • Good Moldability • Halogen Free	• High Elasticity • Lubricated • Medium Density • Medium Hardness • Soft
Uses	• Bonding • Consumer Applications	• 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	1.09		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	15	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2] (100% Strain)	290	psi	ASTM D412
Tensile Strength [2] (Break)	580	psi	ASTM D412
Tensile Elongation [2] (Break)	480	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	57		
Shore A, 5 sec, Injection Molded	55		
Additional Information	**Nominal Value**	**Unit**	
Adhesion to Nylon			
Adhesion to PA6			
Adhesion to PA66			

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	450 to 470	°F
Middle Temperature	470 to 490	°F
Front Temperature	490 to 510	°F
Nozzle Temperature	482 to 536	°F
Processing (Melt) Temp	482 to 536	°F
Mold Temperature	90 to 130	°F
Injection Pressure	5000 to 6000	psi
Injection Rate	Fast	
Holding Pressure	2800 to 3000	psi

Injection Notes

Drying is recommended to achieve a moisture level <= 0.08%. Dry the pellets for 2 to 4 hours at 185°F (85°C).

For overmolding to Nylon 6,6, use higher temperature settings than the recommended processing condition.

Nylon substrate must not be exposed to open air for long to avoid moisture adsorption.

Notes

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

[2] Die C, 20 in/min