+135-3858-6433 (GuangDong)
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TEKNOR APEX

Monprene® OM-16450 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-16450 NAT XRD1 is part of a series of adhesion-modified thermoplastic elastomers designed for over-molding (insert and multi-shot) and co-extrusion onto many engineering thermoplastics, including: PC, ABS, PC/ABS, CoPE, PET, PBT, PMMA, PSA, ASA, SAN, POM, and more. These materials exhibit dry haptics and are well suited for grips and other soft-touch parts. Monprene OM-16450 NAT XRD1 is REACH-SVHC and RoHS compliant and offers several benefits including superior adhesion onto PC/ABS 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 • Crack Resistant • Good Colorability	• Good Flexibility • Good Flow • Good Impact Resistance • Good Moldability • Good Scratch Resistance	• Good Toughness • Halogen Free • Low Compression Set • Medium Density • Medium Hardness
Uses	• Bonding • Consumer Applications • Gaskets • Industrial Applications	• Industrial Parts • Knobs • Lids • Overmolding	• Pipe Seals • Safety Equipment • 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	1.11		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Break)	580	psi	ASTM D412
Tensile Elongation [2] (Break)	500	%	ASTM D412
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	55		
Shore A, 5 sec, Injection Molded	53		
Additional Information	**Nominal Value**	**Unit**	
Adhesion to ABS			
Adhesion to COPE			
Adhesion to PBT			
Adhesion to PC			
Adhesion to PC/ABS			
Adhesion to PMMA			

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Processing Information		
Injection	**Nominal Value**	**Unit**
Drying Temperature	176	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	392 to 464	°F
Middle Temperature	392 to 482	°F
Front Temperature	428 to 500	°F
Nozzle Temperature	428 to 500	°F
Processing (Melt) Temp	428 to 500	°F
Mold Temperature	90 to 130	°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 strongly suggested to enhance bondability.

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