



Monprene® OM-19450V AP NAT XRD1(PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Vulcanizate

General Information

Product Description

Monprene OM-19450V AP NAT XRD1 is adhesion-modified TPV based compound designed for over-molding (insert and multi-shot) and co-extrusion onto many engineering thermoplastics, including: PC, ABS, PC/ABS, PET, PBT, PMMA, ASA, SAN, POM, and more. These materials exhibit dry haptics and are well suited for grips and other soft-touch parts.

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 • Low Hardness • Medium Density
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	1.00		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	189	psi	ASTM D412
Tensile Strength ² (Break)	493	psi	ASTM D412
Tensile Elongation ² (Break)	430	%	ASTM D412
Tear Strength ²	62.8	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	6.8	%	
140°F, 72 hr	37	%	
158°F, 22 hr	37	%	
257°F, 22 hr	55	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	50		
Shore A, 5 sec, Injection Molded	47		

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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