

Versaflex™ VDT 4132

Thermoplastic Elastomer

Key Characteristics

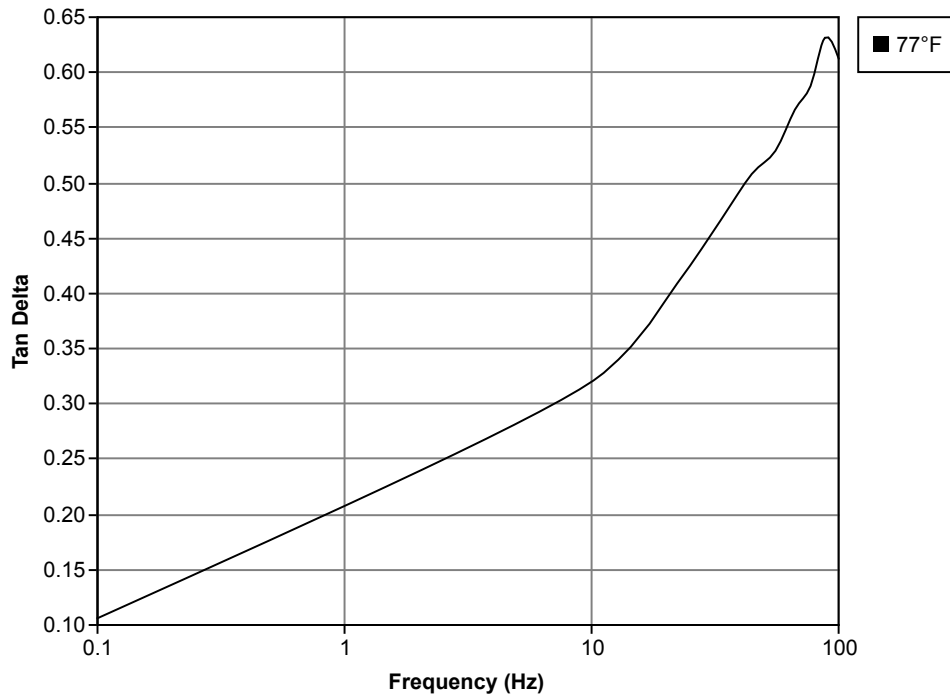
Product Description			
Versaflex™ VDT 4132 is designed to create vibration damping.			
<ul style="list-style-type: none"> • Excellent Vibration Damping 			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America	
Features	• Vibration Damping		
Uses	• Appliance Components • Automotive Applications • Business Equipment	• Consumer Applications • Electrical/Electronic Applications • Flexible Grips	• Power/Other Tools • Soft Touch Applications • Sporting Goods
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	
Multi-Point Data	• Vibration Damping TPE Frequency Sweep	• Vibration Damping TPE Temperature Sweep	

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	0.900	0.900	ASTM D792
Molding Shrinkage - Flow	0.017 to 0.023 in/in	1.7 to 2.3 %	ASTM D955
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{2, 3} (100% Strain, 73°F (23°C))	75.0 psi	0.517 MPa	ASTM D412
Tensile Stress ^{2, 3} (300% Strain, 73°F (23°C))	138 psi	0.951 MPa	ASTM D412
Tensile Strength ^{2, 3} (Yield, 73°F (23°C))	894 psi	6.16 MPa	ASTM D412
Tensile Elongation ^{2, 3} (Break, 73°F (23°C))	920 %	920 %	ASTM D412
Tear Strength	80.0 lbf/in	14.0 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	12 %	12 %	ASTM D395B
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	31	31	ASTM D2240
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 1340 sec ⁻¹	104 Pa·s	104 Pa·s	
392°F (200°C), 11200 sec ⁻¹	19.5 Pa·s	19.5 Pa·s	

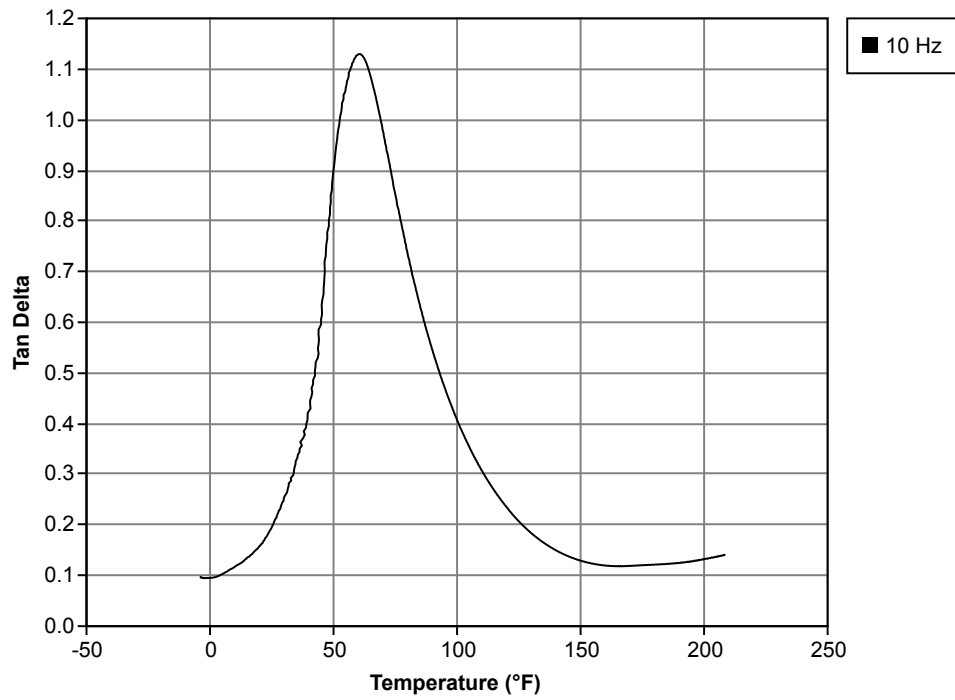
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Vibration Damping TPE Frequency Sweep



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Vibration Damping TPE Temperature Sweep



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Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	330 to 360 °F	166 to 182 °C
Middle Temperature	360 to 400 °F	182 to 204 °C
Front Temperature	370 to 410 °F	188 to 210 °C
Nozzle Temperature	370 to 410 °F	188 to 210 °C
Processing (Melt) Temp	380 to 430 °F	193 to 221 °C
Mold Temperature	60 to 80 °F	16 to 27 °C
Injection Pressure	100 to 800 psi	0.689 to 5.52 MPa
Back Pressure	0.00 to 80.0 psi	0.00 to 0.552 MPa
Screw Speed	80 to 120 rpm	80 to 120 rpm

Injection Notes

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

Regrind levels up to 20% can be used with Versaflex™ VDT 4132 with minimal property loss, provided that the regrind is free of contamination. To minimize losses during molding, the melt temperature should remain as low as possible. The final determination of regrind effectiveness should be determined by the customer.

Versaflex™ VDT 4132 has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer.

Drying is not Required.

Injection speed range: 1-5 in/sec
 2nd Stage hold: 20-40% of boost
 Hold time (thick) range: 4-10 sec
 Hold time (thin) range: 1-4 sec

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	365 to 390 °F	185 to 199 °C
Die Temperature	365 to 380 °F	185 to 193 °C

Extrusion Notes

Rear = 350-370F
 Middle = 375-400F
 Front = 375-400F
 Nozzle = 365-380F
 Screw speed = 100-500rpm

Notes

¹ Typical values are not to be construed as specifications.

² Die C

³ 2 hr

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