Versaflex™ CL 3000-90 BL1424

Thermoplastic Elastomer

Key Characteristics

Product Description			
Versaflex CL 3000-90 BL1424 is a custom thermoplastic elastomer formulation. Product has high flow and can overmold onto PC, ABS, PC/ABS, and Copolyester.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific		
Features	• Specialty Grade		
Uses	• Consumer Applications	• Overmolding	• Soft Touch Applications
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.20	1.20	ASTM D792
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Stress (300% Strain)	1850 psi	12.7 MPa	ASTM D412
Tensile Strength [2, 3] (Break, 73°F (23°C))	3390 psi	23.4 MPa	ASTM D412
Tensile Elongation [2, 3] (Break, 73°F (23°C))	590 %	590 %	ASTM D412
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	89	89	ASTM D2240
Fill Analysis	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Apparent Viscosity			ASTM D3835
392°F (200°C), 11200 sec^-1	56.7 Pa·s	56.7 Pa·s	

Legal Statement

Bags of Versaflex CL 3000-90 BL1424 should be left in the box with the top closed and not stored in direct sunlight.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	140 to 194 °F	60 to 90 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.020 to 0.030 %	0.020 to 0.030 %
Rear Temperature	347 to 365 °F	175 to 185 °C
Middle Temperature	356 to 392 °F	180 to 200 °C
Front Temperature	356 to 419 °F	180 to 215 °C
Nozzle Temperature	374 to 446 °F	190 to 230 °C
Processing (Melt) Temp	374 to 446 °F	190 to 230 °C
Mold Temperature	55 to 130 °F	13 to 54 °C
Back Pressure	0.00 to 50.0 psi	0.00 to 0.345 MPa
Screw Speed	50 to 80 rpm	50 to 80 rpm

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Injection Notes

Typical colorant letdown ratios are 50:1 to 25:1 - loading levels should be as low as possible to minimize the effect on adhesion. A high color match consistency can be obtained by the use of precolored compounds available from GLS. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials. Contact Avient for more information on appropriate color concentrate base resins.

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

Versaflex CL 3000-90 BL 1424 should not be left in the barrel for extended idle periods (greater than 5 minutes).

Suggested Dewpoint: -40°F

Hot Runners: 380°F-440°F
Hot Tip: 380°F-450°F

Injection Speed: 0.5 to 2 in/sec
1st Stage - Boost Pressure: 500 to 1,000 psi
2nd Stage - Hold Pressure: 20-60% of Boost
Hold Time (Thick Part): 2 to 4 sec
Hold Time (Thin Part): 1 to 2 sec

Notes

[1] Typical values are not to be construed as specifications.

[2] Die C

[3] 2 hr

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