Versaflex™ CE 3620

Thermoplastic Elastomer

PolyOne Corporation

Message:

Versaflex™ CE 3620 is targeted for consumer electronics applications where abrasion resistance, UV resistance and enhanced feel are required. Versaflex™ CE 3620 can also overmold to a variety of substrates including PC, ABS, PC/ABS, and Copolyester.

General Information	
Features	Low friction coefficient Good UV resistance Workability, good Sprayable Good coloring Good wear resistance Good chemical resistance Good appearance
Uses	overmolding Thin wall parts Computer components Electrical/Electronic Applications Electrical appliances Thick wall fittings (parts) Soft touch application Soft handle Communication application Consumer goods application field
Agency Ratings	ISO 10993 Part 10
RoHS Compliance	RoHS compliance
Appearance	Black Natural color
Forms	Particle
Processing Method	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.998	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	2.0 - 15	g/10 min	ASTM D1238
200°C/5.0 kg	25 - 35	g/10 min	ASTM D1238

Molding Shrinkage - Flow (193°C)	1.1 - 1.7	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	65		ASTM D2240
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [1]			ASTM D412
100% strain, 23°C [2]	3.05	MPa	ASTM D412
300% strain, 23°C [3]	4.26	MPa	ASTM D412
Tensile Strength (Break, 23°C)	7.06	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	630	%	ASTM D412
Tear Strength (23°C)	40.6	kN/m	ASTM D624
Compression Set [4] (23°C, 22 hr)	18	%	ASTM D395
Flammability	**Nominal Value**		**Test Method**
Flame Rating (1.50 to 13.0mm, All Colors)	HB		UL 94
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Apparent Viscosity (200°C, 11200 sec^-1)	19.4	Pa·s	ASTM D3835
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Mass Loss - 500 Cycle Abrasion Resistance [5] (23°C)	30.0	mg	ASTM D3389
Injection	**Nominal Value**	**Unit**	
Drying Temperature	51.7 - 60.0	°C	
Drying Time	1.0 - 3.0	hr	
Suggested Max Moisture	0.020 - 0.030	%	
Suggested Max Regrind	20	%	
Rear Temperature	171 - 182	°C	
Middle Temperature	182 - 221	°C	
Front Temperature	188 - 227	°C	
Nozzle Temperature	193 - 238	°C	
Processing (Melt) Temp	193 - 232	°C	
Mold Temperature	12.8 - 43.3	°C	
Back Pressure	0.00 - 0.345	MPa	
Screw Speed	50 - 100	rpm	

Injection instructions

Color concentrates with EVA carriers are most suitable for coloring Versaflex™ CE 3620. Typical 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.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™ CE 3620 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™ CE 3620 should not be left in the barrel for extended idle periods (greater than 5 minutes).Suggested Dewpoint: -40°FInjection Speed: 0.5 to 4 in/sec1st Stage - Boost Pressure: 500 to 1,000 psi2nd Stage - Hold Pressure: 20-60% of BoostHold Time (Thick Part): 2 to 4 secHold Time (Thin Part): 1 to 2 sec

NOTE	
1.	2 hours
2.	Mouth die c
3.	C mould

4.	25% deflection
5.	Abrasion wheel: H-18Mass Lost

Recommended distributors for this material

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