Versaflex[™] CE 3115

Thermoplastic Elastomer

PolyOne Corporation

Message:

Versaflex CE 3115 is mainly a material designed for the consumer electronics industry, with excellent wear resistance, chemical resistance and dry touch. At the same time, it can also be used in many hard plastics with good encapsulation performance, mainly including PC, ABS, PC/ABS and COPE

General Information			
Features	Low friction coefficient		
	Good UV resistance		
	Workability, good		
	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		
RoHS Compliance	RoHS compliance		
Appearance	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.17	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	1.0 - 12	g/10 min	ASTM D1238
200°C/5.0 kg	15 - 25	g/10 min	ASTM D1238
Molding Shrinkage - Flow (193°C)	0.90 - 1.5	%	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	3.07	MPa	ASTM D412
300% strain, 23°C ³	5.10	MPa	ASTM D412
Tensile Strength (Break, 23°C)	15.2	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	640	%	ASTM D412
Tear Strength (23°C)	52.5	kN/m	ASTM D624
Compression Set ⁴ (23°C, 22 hr)	24	%	ASTM D395
Flammability	Nominal Value		Test Method
Flame Rating (1.50 to 13.0mm, All Colors)	НВ		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (200°C, 11200 sec^-1)	16.0	Pa·s	ASTM D3835
Additional Information	Nominal Value	Unit	Test Method
Mass Loss - 500 Cycle Abrasion Resistance ⁵ (23°C)	2.0	mg	ASTM D3389
Injection	Nominal Value	Unit	
Drying Temperature	51.7 - 60.0	°۲	
		C	
Drying Time	3.0 - 4.0	hr	
Drying Time Suggested Max Moisture	3.0 - 4.0 < 0.030	hr %	
Drying Time Suggested Max Moisture Suggested Max Regrind	3.0 - 4.0 < 0.030 20	hr %	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature	3.0 - 4.0 < 0.030 20 171 - 182	hr // // // // // // // // // // // // //	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210	hr % % °C °C	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216	hr % % °C °C °C	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216 193 - 221	hr % % °C °C °C °C °C	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216 193 - 221 193 - 218	hr % % °C °C °C °C °C °C °C	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp Mold Temperature	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216 193 - 221 193 - 218 12.8 - 29.4	hr % % °C °C °C °C °C °C °C °C °C	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp Mold Temperature Back Pressure	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216 193 - 221 193 - 218 12.8 - 29.4 0.00 - 0.345	hr % % °C °C °C °C °C MPa	
Drying Time Suggested Max Moisture Suggested Max Regrind Rear Temperature Middle Temperature Front Temperature Nozzle Temperature Processing (Melt) Temp Mold Temperature Back Pressure Screw Speed	3.0 - 4.0 < 0.030 20 171 - 182 182 - 210 188 - 216 193 - 221 193 - 221 193 - 218 12.8 - 29.4 0.00 - 0.345 50 - 100	hr % % °C °C °C °C °C °C P rpm	

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 GLS 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[™] CE 3115 should not be left in the barrel for extended idle periods (greater than 5 minutes).Suggested Dewpoint: -40°FInjection Speed: 0.5 to 2 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

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