Versaflex™ CL E90

Thermoplastic Elastomer

PolyOne Corporation

Message:

Versaflex™CL E90 is a material with extremely high transparency, high performance and high temperature heating. It is an ideal material for medical and food packaging. Versaflex™CL E90 also did not use plasticizers.
New Products. Commercial norms have not yet been established.
• Flexible
• Special formula without plasticizer
• High transparency

General Information			
Features	Good flexibility Definition, high		
Uses	Films Personal care Bottle Medical/nursing supplies		
Agency Ratings	FDA 21 CFR 177.1210 2 ISO 10993 Part 4 ISO 10993 Part 5 USP Class VI		
RoHS Compliance	RoHS compliance		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.898	g/cm³	ASTM D792
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 10 sec)	90		ASTM D2240
Films	**Nominal Value**	**Unit**	**Test Method**
Oxygen Permeability			ASTM D3985
21°C, 120 µm	280	cm³·mm/m²/atm/24 hr	ASTM D3985
21°C, 1800 µm	260	cm³·mm/m²/atm/24 hr	ASTM D3985
Oxygen Transmission Rate			ASTM D3985
21°C, 120 µm	2300	cm³/m²/24 hr	ASTM D3985
21°C, 1800 µm	140	cm³/m²/24 hr	ASTM D3985
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [1]			ASTM D412

100% strain, 23°C [2]	6.89	MPa	ASTM D412
300% strain, 23°C [3]	8.51	MPa	ASTM D412
Tensile Strength (Break, 23°C)	12.6	MPa	ASTM D412
Tensile Elongation (Break, 23°C)	570	%	ASTM D412
Compression Set			ASTM D395B
22°C, 22 hr	27	%	ASTM D395B
70°C, 22 hr	67	%	ASTM D395B
100°C, 22 hr	73	%	ASTM D395B

Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity			ASTM D3835
200°C, 1340 sec^-1	162	Pa·s	ASTM D3835
200°C, 11200 sec^-1	34.0	Pa·s	ASTM D3835

Extrusion	Nominal Value	Unit
Melt Temperature	182 - 204	°C
Die Temperature	171 - 199	°C

Extrusion instructions

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Versaflex™ CL E90. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. 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).Drying is not Required.Rear Zone = 330-370FCenter Zone = 350-400FFront Zone = 360-420FScrew Speed = 100-500 RPM

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

Recommended distributors for this material

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