The Leader in Total TPE Solutions

Versaflex® CL2250

Thermoplastic Elastomer Alloy

Technical Data Sheet

July 21, 2009

Product Description	**Features**
Versaflex® CL2250 is an easy processing compound designed for use in injection molding applications where FDA compliance, clarity and enhanced heat resistance are required.	-Excellent Clarity -Very Good Heat and Boil Resistance -Superior Colorability -Overmold Adhesion to Polypropylene
Color	**Processing Method**
Clear	Injection Molding

Mechanical Properties	**English**	**SI**	**Test Method**
Shore Hardness, 10 sec delay	50 A	50 A	ASTM D2240
Specific Gravity	0.89	0.89	ASTM D792, 23/23°C
Tensile Strength	840 psi	5792 kPa	ASTM D412-Die C, 2hrs,23°C
Elongation at Break	760 %	760 %	ASTM D412-Die C, 2hrs,23°C
100% Modulus	220 psi	1517 kPa	ASTM D412-Die C, 2hrs,23°C

300% Modulus	350 psi	2413 kPa	ASTM D412-Die C, 2hrs,23°C
Tear Strength	140 pli	25 kN/m	ASTM D624
Flexural Modulus	2019 psi	13920 kPa	ASTM D790

Thermal/Rheological Properties	**English**	**SI**	**Test Method**
Melt Flow Rate @ 190°C, 2160g	13 g/10 min	13 g/10 min	ASTM D 1238
Apparent Viscosity @ 200°C 11170/sec	11800 cPs	12 Pa-sec	ASTM D 3835

Aged Properties	**English**	**SI**	**Test Method**
Compression Set, 22 hrs @ RT	20 %	20 %	ASTM D 395B

Regulatory Information	**Yes/No**
FDA	Yes
USP VI	Yes

ISO 10993	Yes

Coloring

Color concentrates based on polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (LDPE) are most suitable for coloring Versaflex® CL2250. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25-40 g/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 the use of precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials.

Purging

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

Regrind

Regrind levels up to 20% can be used with Versaflex® CL2250 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.

Shrinkage Properties	English	SI	Test Method
Flow	0.008 - 0.012 in/in	0.008 - 0.012 mm/mm	ASTM D 955

Residence Time

Versaflex® CL2250 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 Time	English	SI

Drying is not Required

Molding Temperatures	English	SI
Rear	340 - 370 °F	171 - 188 °C
Center	380 - 430 °F	193 - 221 °C
Front	380 - 440 °F	193 - 227 °C
Nozzle	410 - 440 °F	210 - 227 °C
Melt	410 - 430 °F	210 - 221 °C
Mold	55 - 100 °F	13 - 38 °C

Molding Parameters	English	SI
Screw Speed	25 - 75 rpm	25 - 75 rpm
Injection Speed	0.5 - 2 in/sec	13 - 51 mm/sec
1st Stage - Boost Pressure	100 - 800 psi	689 - 5516 kPa
2nd Stage - Hold Pressure	30 % of Boost	70 % of Boost
Back Pressure	0 - 80 psi	0 - 552 kPa
Hold Time (Thick Part)	4 - 10 sec	4 - 10 sec
Hold Time (Thin Part)	1 - 3 sec	0 - 3 sec