Glazelock Shims Spec Sheet

General Polymers

Grade:	Huntsman PS 333
Generic:	Polystyrene High Impact
Manufacturer:	Huntsman Chemical Corporation
Made in the USA	

Property	Data
Agency Ratings/Specs	FDA 21 CFR 177.1640
Appearance	Natural Color
Recycled	No

Physical	Data	Units
Density/Specific Gravity	1.0400	sp gr 23/23C
Melt Flow	8.06@ G-200 C/5.0kg	g/10 min

Mechanical	Data	Units
Elongation @ Break	42.1	%
Flexural Modulus	292000	psi
Flexural Strength @ Yield	5030	psi
Tensile Strength @ Break	3320	psi

Impact	Data	Units
Notched Izod Impact	1.81	ft-lb/in

Thermal	Data	Units
Deflection Temp @ 264 psi	18000	F
Vical Softening	203	F

Reports on the Compressive Properties of Polystyrene Shims

Six different designs of polystyrene shims were submitted for an evaluation of compressive properties. The tests were conducted in accordance with ASTM D 695. Flat rectangular samples were prepared from sections of molded parts where the surface exhibited the greatest degree of regularity and therefore afforded good overall contact with the compression platens over the entire part.

Stress levels of 25-40% were used to ensure that the material went through the yield point. This is clearly identified in the graphs as the inflection point between the proportional region and the area of decreased slope. The program identifies the stress at strain levels of 5% and 10%. The yield and endpoint can be identified visually with the cursor and are included in the summary of average values given below.

Summary of Compressive Tests Results

Sample	Stress @ 5% (psi)	Stress @ 10% (psi)	Yield Stress (psi)	Strain @ End (20%) (psi)	Modulus (psi)
Small Black	4428	5529	4127	7079	88,680
Large Black	6448	7777	6358	8804	148,760
Small Blue	5954	9528	7487	11201	148,970
Large Blue	6296	8865	7386	10780	163,430
Small Red	7549	9088	7444	10720	176,440
Large Red	7118	10017	8246	12089	197,920

No obvious pattern of properties as a function of color, wall thickness, or foaming agent could be determined from this data. However, it is apparent that all of the products have yield stresses well in excess of 2000 psi.

Jan-07