Celplast S

Property[a]	Test Method[b]	Typical Value, Units[c]
Plasticizer		29%
Specific Gravity	D 792	1.27
Mechanical Properties		
Tensile Stress @ Yield	D 638	29.6 MPa (4300 psi)
Tensile Stress @ Break	D 638	33.1 MPa (4800 psi)
Elongation @ Break	D 638	30%
Flexural Modulus	D 790	1931 MPa (2.8 x 10^5 psi)
Flexural Yield Strength	D 790	46.9 MPa (6800 psi)
Rockwell Hardness, R Scale	D 785	71
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	203 J/m (3.8 ft.lbf/in.)
@ -40°C (-40°F)	D 256	53 J/m (1.0 ft.lbf/in.)
Thermal Properties		
Deflection Temperature[d]		
@ 1.82 MPa (264 psi)	D 648	68°C (154°F)
@ 0.455 MPa (66 psi)	D 648	79°C (174°F)
Vicat Softening Temperature[d]	D 1525	105°C (221°F)
Permanence Properties		
Water Absorption, 24 h immersion	D 570	2.3%
Soluble Matter Loss	D 570	0.4%
Weight Loss on Heating [72 hours @ 80°C (176°F)]	D 706	2.6%
Miscellaneous Acetate Properties		
Specific Heat @ 23°C (73°F)	DSC	1.26-1.67 kJ/kg.K (0.301-0.399 Btu/lb.°F)
Thermal Conductivity	C 177	0.17-0.33 W/m.K (1.2-2.3 Btu.in./h.ft^2.°F)
Coefficient of Linear Thermal Expansion	D 696	11-17 x 10^{-5} /°C (mm/mm°C) (6-9 x 10-5 /°F (in./in.°F))
Mold Shrinkage	D 955	0.2-0.6%
Dielectric Strength	D 149	11.8-18.7 kV/mm (300-475 V/mil)