PSS Property Comparison

Based on 0.25" sheet thickness.
V-50 test conducted using 0.22-caliber, 17-grain FSP.

	TEST CONDITIONS	UNITS	PSS-1000	PSS-1400	POLYCARBONATE	ACRYLIC
PHYSICAL						
Specific Gravity	-	-	1.11	1.11	1.20	1.20
Areal Density	0.25" Thickness	lbs / ft^2	1.44	1.44	1.56	1.56
MECHANICAL						
Tensile Modulus	2" / min	MPa	1655	696	2380	3100
Yield Stress	2" / min	MPa	52	44	62	72
Strain at Break	2" / min	%	112	190	100	5
IMPACT						
V50	0.22 cal, 17 gr FSP	(ft / s)	1282	1125	889	775
V50 / AD		(ft / s) / (lbs / ft^2)	890	782	570	497
HARDNESS						
Durometer, Shore D	23°C, 50% RH	-	84	73	84 -86	92 - 93
Taber Abrasion	100 Cycles	Δ% Haze	27%	11%	45%	36%
THERMAL						
Coefficient of Thermal Expansion	-	µm / m°C	120	-	110	50
OPTICAL						
Light Transmission	-	%	90%	90%	86%	91%
Haze	-	%	0.2	0.3	0.8	1.0
Refractive Index	-	-	1.53	1.52	1.59	1.49