VIVAK VI Properties

Physical	Test method	Units	VIVAK PETG VI
Specific Gravity/Relative Density	ASTM D-792		1.27
Optical Refractive Index	ASTM D-542	nD	1.57
Light Transmission -Total	ASTM D-1003	%	86
Light Transmission - Haze	ASTM D-1003	%	1.0
Water Absorption	ASTM D-570	% By wt	0.2

Mechanical	Test method	Units	VIVAK PETG VI
Tensile Strength	ASTM D-638	psi	7,700
Tensile Modulus of Elasticity	ASTM D-638	psi	320,300
Flexural Strength	ASTM D-790	psi	11,200
Flexural Modulus of Elasticity	ASTM D-790	psi	310,000
Dielectric Constant	ASTM D-150	@1kHz	2.6
Dielectric Contstant	ASTM D-150	@1mHz	2.4
Dielectric Strength	ASTM D-149	volts/mil	410
Compressive Strength	ASTM D-695	psi	8,000
Shear Strength	ASTM D-732	psi	9,000
Rockwell Hardness	ASTM D-785		R-115

Thermal	Test method	Units	VIVAK PETG VI
Deflection Temperature 264 psi (1.8 MPa)	ASTM D-648	°F	157
Deflection Temperature 66 psi (0.45 MPa)	ASTM D-648	°F	164
Coefficient of Thermal Expansion - 30 to 30°C	ASTM D-696	in/(in-°F) x 10^{-5}	3.8
Thermal Conductivity	ASTM C-177	BTU-ft/(hr-ft^2	0.13
Flammability (Burning Rate)	ASTM D-635	In/minute	0.06
Flammability	UL 94		HB
Smoke Density Rating	ASTM D-2843	%	53.8
Self-Ignition Temperature	ASTM D-1929	°F	880
Flame Spread Index	ASTM E84		85
Smoke Developed Index	ASTM E84		450
Glasss Transition Temperature	ASTM D-3418	psi	178