

TECHNICAL INFORMATION

PERFORMANCE

VIVAK Sheet combines an excellent balance of properties for a wide range of fabricated products.

APPLICATION LIMITATIONS

VIVAK Sheet, like any thermoplastic, has its performance limitations under specific conditions and in particular environments, which the user should consider.

For Example:

- VIVAK Sheet's heat resistance of 164°F precludes its use in heat generating applications where typical temperatures exceed 164°F.
- While it is a common choice for interior signage, its limited UV resistance eliminates it as a potential choice for long-term outdoor applications. For exterior use, ask for information on VIVAK UV.
- VIVAK Sheet's good chemical resistance makes it ideally suited for harsh industrial environments. However, this chemical resistance may mean longer fixturing time when using solvent based adhesives.

TYPICAL PHYSICAL PROPERTIES OF VIVAK SHEET			
PROPERTY	VIVAK	UNITS	TEST METHOD
GENERAL			
Specific Gravity	1.27	-	ASTM D-792
Water Absorption after 24 hours	0.2	%	ASTM D-570
THERMAL			
Deflection Temperature @ 264 psi	157	°F	ASTM D-648
Deflection Temperature @ 66 psi	164	°F	ASTM D-648
Coefficient of Thermal Expansion	3.8	in/in/°Fx10 ⁵	ASTM D-696
Flammability ≥.060"	HB	-	UL 94
Glass Transition Temperature	178	°F	-
Forming Temperature	280°-320°	°F	-
MECHANICAL			
Tensile Strength, Ultimate .125"	7.700	psi	ASTM D-638
Tensile Modulus .125"	320.000	psi	ASTM D-638
Flexural Strength .125"	11,200	psi	ASTM D-790
Flexural Modulus .125"	310,000	psi	ASTM D-790
Izod Impact Notched .125" at 73°	1.7	ft.lb/in	ASTM D-256
Izod Impact Notched .125" at 32°	1.2	ft.lb/in	ASTM D-256
Drop Dart Impact .250" at 73°	53	ft.lbs	ASTM D-3763
Rockwell Hardness	115	R Scale	ASTM D-785
OPTICAL			
Light Transmission	86	%	ASTM D-1003
Refractive Index	1.57	-	ASTM D-542
Haze	1.0	%	ASTM D-1003

PERFORMANCE COMPARISON

Compare VIVAK Sheet's performance for interior fabricated and formed applications. It delivers an optimum balance of performance and economy.

Impact Strength Falling Dart @ 73°F ASTM D-5420 @ .125"	Acrylic	Polycarbonate	VIVAK Sheet
10 in/lbs.	Failed	No break	No break
100 in/lbs.	Failed	No break	No break
300 in/lbs.	Failed	No break	No break
Heat Distortion @264 psi @66 psi	190°F	270°F 280°F	157°F 164°F
Gamma Stability	Poor	Fair	Excellent
Chemical Resistance	Poor	Fair	Good

TECHNICAL ASSISTANCE

DSM Sheffield will not be responsible for the use of this information relative to actual application. Users must make their own determination of its suitability for their specific use. No warranty is made for the fitness of any product, and nothing herein waives any of the seller's conditions of sale.

MATERIAL AVAILABILITY				
Materials	Gauge Range	Colours	Patterns	Size
VIVAK	.020"-375"	Standard: <ul style="list-style-type: none"> Clear Custom: <ul style="list-style-type: none"> Tints Opagues 	Standard: <ul style="list-style-type: none"> Polished 2 sides 	Standard: <ul style="list-style-type: none"> 48" X 96" 60" X 96" Custom: <ul style="list-style-type: none"> Available