TUFFAK®

PLASKOLITE

TUFFAK Marine 5 polycarbonate sheet

FLEXIBLE ENCLOSURE

TUFFAK Marine 5 sheet is a polycarbonate product designed for applications demanding high optical clarity, exceptional durability, and longevity against the harsh marine environment. State-of- the-art manufacturing processes provide low optical distortion for clear views and unparalleled sight lines. The advanced hard coat technology provides excellent abrasion resistance, enhanced clarity, chemical resistance, and long lasting outdoor weathering performance. TUFFAK Marine 5 maintains its impact strength in extreme temperatures to -30ºF. TUFFAK Marine 5 can be easily cut and sewn, making this a more versatile option versus glazing materials that require gluing.

TUFFAK Marine 5 is offered with a five (5) year Limited Product Warranty against micro-cracking, yellowing, and breakage. The terms of the warranty are available upon request.

APPLICATIONS

Marine flexible enclosures, tent and awning enclosures

Typical Properties*

Property	Test Method	Units	Values
PHYSICAL			
Specific Gravity	ASTM D 792	–	1.2
Light Transmission, Clear @ 0.060″	ASTM D 1003	%	90
Light Transmission, Clear @ 0.080″	ASTM D 1003	%	89
Chemical Resistance	ANSI Z26.1	–	Pass
Taber Abrasion, 100 Cycles, Delta Haze CS-10F Wheel @ 500 g load	ASTM D 1044	%	2
MECHANICAL			
Tensile Strength, Ultimate	ASTM D 638	psi	9,500
Modulus of Elasticity	ASTM D 638	psi	340,000
Flexural Strength	ASTM D 790	psi	13,500
Compressive Strength	ASTM D 695	psi	12,500
Izod Impact Strength, Notched @ 0.125″	ASTM D 256	ft·lbs/in	16
Izod Impact Strength, Unnotched @ 0.125″	ASTM D 256	ft·lbs/in	No Break
Instrumented Impact @ 0.60″	ASTM D 3763	ft·lbs	21
Instrumented Impact @ 0.80″	ASTM D 3763	ft·lbs	33
Instrumented Impact @ 0.125″	ASTM D 3763	ft·lbs	47
Instrumented Impact @ 0.125″, @ -30ºF	ASTM D 3763	ft.lbs	50
Poisson's Ratio	ASTM E 132	–	0.38
Rockwell Hardness	ASTM D 785	–	M70/R118
THERMAL			
Coefficient of Thermal Expansion	ASTM D 696	in/in/°F	3.75 x 10-5
Heat Deflection Temperature @ 66 psi	ASTM D 648	°F	280

*Typical properties are not intended for specification purposes

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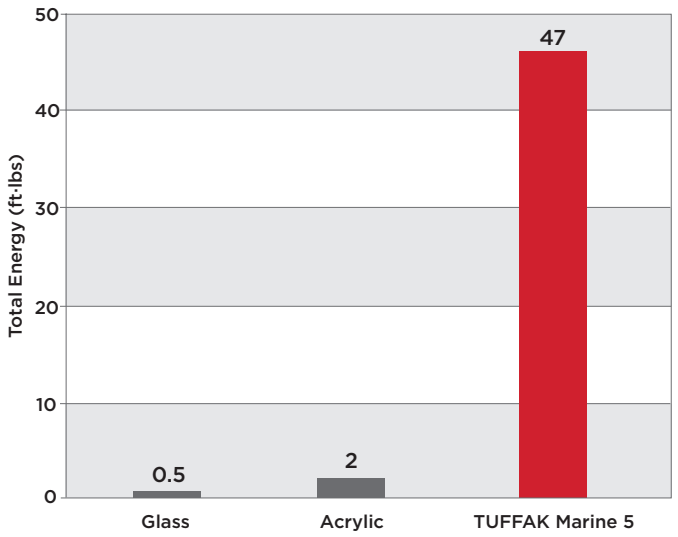
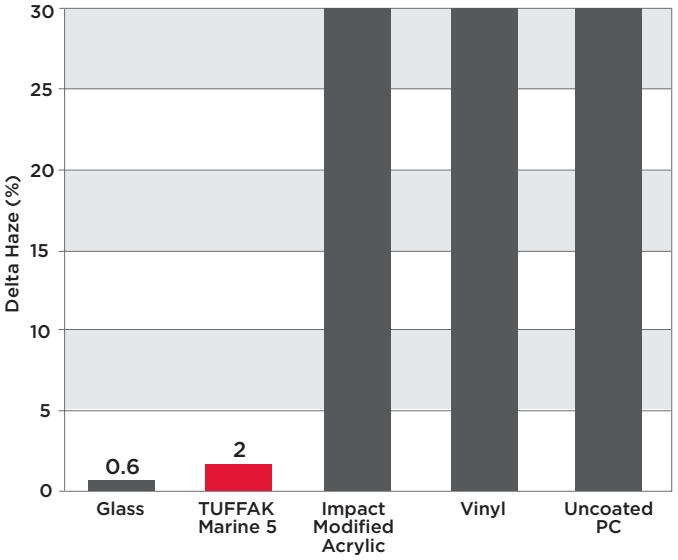
Impact Resistance*



*Instrumented Impact per ASTM D 3763, sample thickness is 0.125˝ nominal

Abrasion Resistance*



*Taber Abrasion per ASTM D 1044, 100 cycles, CS-10F wheels at 500 g load

Chemical Resistance*

Chemical Tested	Resistance Time
Acetone	>24 hrs
Antifreeze (50/50)	>24 hrs
Benzene	>24 hrs
Bleach (Clorox concentrated)	>24 hrs
Denatured Alcohol	>24 hrs
Di (2-ethylhexyl) phthalate	>24 hrs
Diesel Oil	>24 hrs
Isopropyl Alcohol (IPA)	>24 hrs
Kerosene	>24 hrs
Methyl Alcohol	>24 hrs
Methyl Butyl Ketone	>24 hrs
Methyl Ethyl Ketone	>24 hrs
Methylene Chloride	>24 hrs
Naphthalene, 1-bromo-	>24 hrs
Potassium Hydroxide - Lye (10%)	>24 hrs
Sodium Hydroxide (10%)	>24 hrs
Toluene	>24 hrs
Turpentine	>24 hrs
Unleaded Gasoline (87 Octane)	>24 hrs
Vinegar	>24 hrs
Xylene	>24 hrs
Acids:	
Hydrochloric Acid (20%)	>24 hrs
Sulfuric Acid (20%)	>24 hrs

*Tested in accordance to ASTM D 1308-02

Always keep hazardous chemicals away from uncoated edge of Tuffak Polycarbonate Sheet

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

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