

Product Data - TUFFAK GP Matte



MATTE TEXTURED

TUFFAK GP Mattesheet is a translucent, UV stabilized, polycarbonate product with a matte textured surface on one side. This unique matte texture obscures vision and reduces glare. The product features outstanding impact strength, superior dimensional stability, and high temperature resistance. TUFFAK GP Matte sheet is offered with a five (5) year Limited Product Warranty against breakage. The terms of the warranty are available upon request.

APPLICATIONS

Industrial glazing, privacy glazing, thermoformed and fabricated translucent components, signs, displays, lighting covers

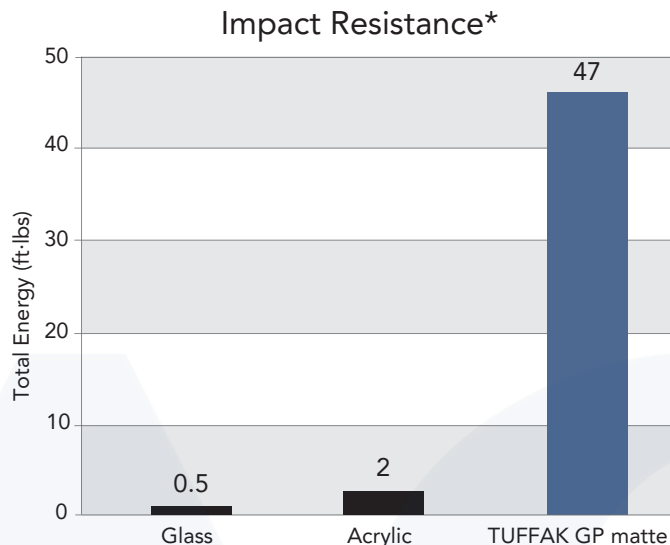
TYPICAL PROPERTIES*

Property	TestMethod	Units	Values
PHYSICAL			
Specific Gravity	ASTMD792	–	1.2
Refractive Index	ASTMD542	–	1.586
Light Transmission, Clear @ 0.118"	ASTMD1003	%	90
Water Absorption, 24 hours	ASTMD570	%	0.15
Poisson's Ratio	ASTME132	–	0.38
MECHANICAL			
Tensile Strength, Ultimate	ASTMD638	psi	9,500
Tensile Strength, Yield	ASTMD638	psi	9,000
Tensile Modulus	ASTMD638	psi	340,000
Elongation	ASTMD638	%	110
Flexural Strength	ASTMD790	psi	13,500
Flexural Modulus	ASTMD790	psi	345,000
Compressive Strength	ASTMD695	psi	12,500
Compressive Modulus	ASTMD695	psi	345,000
Izod Impact Strength, Notched @ 0.125"	ASTMD256	ft-lbs/in	18
Izod Impact Strength, Unnotched @ 0.125"	ASTMD256	ft-lbs/in	60 (no break)
Instrumented Impact @ 0.125"	ASTMD3763	ft-lbs psi	47
Shear Strength, Ultimate	ASTMD732	psi	10,000
Shear Strength, Yield	ASTMD732	psi	6,000
Shear Modulus	ASTMD732	–	114,000
Rockwell Hardness	ASTMD785		M70 / R118
THERMAL			
Coefficient of Thermal Expansion	ASTMD696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTMC177	BTU·in/hr·ft ² ·°F	1.35
Heat Deflection Temperature @ 264 psi	ASTMD648	°F	270
Heat Deflection Temperature @ 66 psi	ASTMD648	°F	280
Brittleness Temperature	ASTMD746 NFRC	–	-200
Shading Coefficient, clear @ 0.236"	100-2010 NFRC	BTU/hr·ft ² ·°F	0.97
U factor @ 0.236" (summer, winter)	100-2010		0.85, 0.92
ELECTRICAL			
Dielectric Constant @ 10 Hz	ASTMD150	–	2.96
Dielectric Constant @ 60 Hz	ASTMD150	–	3.17
Volume Resistivity	ASTMD257	Ohm·cm	8.2 x 10 ¹⁶
Dissipation Factor @ 60 Hz	ASTMD150	–	0.0009
Arc Resistance	–	– Seconds	– 10
Stainless Steel Strip electrode	ASTMD495	Seconds	120
Tungsten Electrodes	ASTMD495		380
Dielectric Strength, in air @ 0.125"	ASTMD149	V/mil	
FLAMMABILITY			
Horizontal Burn, AEB	ASTMD635	in	<1
Ignition Temperature, Self	ASTMD1929	°F	1070
Ignition Temperature, Flash	ASTMD1929	°F	870
Flame Class @ 0.060"	UL94	–	HB

*Some properties characterized using non-textured sheet.

These data are presented only as typical properties of the base resins which, to our best knowledge, are true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guaranty or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise. All risks of such use are assumed by the user. Furthermore, nothing contained herein shall be construed as an inducement or recommendation to use any process or to manufacture or use any product in conflict with existing or future patents.

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

Regulatory code compliance and certifications

ANSI Z97.1-2009, 2015: American National Standard for Safety Glazing Materials Used in Buildings-
Safety Performance Specifications and Methods of Test, Class A, Unlimited

CPSC 16 CFR 1201 Category I and Category II: Safety Standard for Architectural Glazing Materials Florida

Building Code 2017

High Velocity Hurricane Zone Classified
Miami-Dade NOA: NOA

ICC-ES Evaluation Report ESR-2728

UL 94: Flammability File #E87887

UL 972: Burglary Resistant Glazing Materials, UL File #BP2126 UL 723:

Building Materials, UL File #R21646

UL 746C: Suitability for Outdoor Use, UL File #E87887*

*TUFFAK GP products have limited weathering properties, for more information contact your representative.

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