

TUFFAK FD

FDA Food Contact Compliant

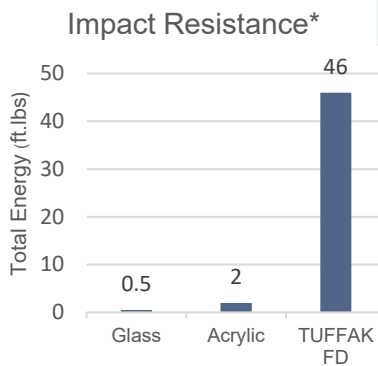
TUFFAK FD sheet is a non-UV stabilized transparent polycarbonate product which complies with FDA regulation 21 CFR § 177.1580 requirements for food contact. It features outstanding impact strength, superior dimensional stability, high temperature resistance, and high clarity. Ideally suited for demanding applications in food processing environments, as well as medical applications, this lightweight thermoformable sheet is also easy to fabricate and decorate.

Applications

Food processing equipment and guards, bulk food bins, candy molds, sneeze guards, single use autoclave packaging, hospital trays, bassinets, incubators, medical device storage containers

Regulatory code compliance and certifications

UL 94: Flammability File #E87887



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

Typical Properties

Property	Test Method	Units	Values
PHYSICAL			
Specific gravity	ASTM D 792	-	1.2
Refractive index	ASTM D 542	-	1.586
Light transmission, Clear @ 0.118"	ASTM D 1003	%	88
Water absorption, 24 hours	ASTM D 570	%	0.15
Poisson's Ratio	ASTM E 132	-	0.38
MECHANICAL			
Tensile strength, ultimate	ASTM D 638	psi	9,500
Tensile strength, yield	ASTM D 638	psi	9,000
Tensile modulus	ASTM D 638	psi	340,000
Elongation	ASTM D 638	%	110
Flexural strength	ASTM D 790	psi	13,500
Flexural modulus	ASTM D 790	psi	345,000
Compressive strength	ASTM D 695	psi	12,500
Compressive modulus	ASTM D 695	psi	345,000
Izod impact strength, notched @ 0.125"	ASTM D 256	ft-lbs/in	18
Izod impact strength, unnotched @ 0.125"	ASTM D 256	ft-lbs/in	60 (no break)
THERMAL			
Coefficient of thermal expansion	ASTM D 696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of thermal conductivity	ASTM C 177	BTU-in/hr-ft ² -°F	1.35
Heat deflection temperature @ 264 psi	ASTM D 648	°F	270
Heat deflection temperature @ 66 psi	ASTM D 648	°F	280
Brittleness temperature	ASTM D 746	°F	-200
ELECTRICAL			
Dielectric constant @ 10 Hz	ASTM D 150	-	2.96
Dielectric constant @ 60 Hz	ASTM D 150	-	3.17
Volume resistivity	ASTM D 257	Ohm-cm	8.2 x 10 ¹⁶
Dissipation factor @ 60 Hz	ASTM D 150	-	0.0009
Arc resistance	-	-	-
Stainless steel strip electrode	ASTM D 495	Seconds	10
Tungsten electrodes	ASTM D 495	Seconds	120
Dielectric strength, in air @ 0.125"	ASTM D 149	V/mil	380
FLAMMABILITY			
Ignition temperature, self	ASTM D 1929	°F	1070
Ignition temperature, flash	ASTM D 1929	°F	870
Flame class @ 0.060"	UL 94	-	HB

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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 determines the suitability of our materials and suggestions before adopting them on a commercial scale.