

Makrolon FD Product Details



MAKROLON® FD polycarbonate sheet is a clear, non-UV stabilized sheet which complies with FDA and NSF® standard 51 requirements. Close gauge tolerance control combined with high impact strength and heat resistance make MAKROLON FD polycarbonate sheet ideally suited for demanding applications in medical equipment as well as food processing environments. MAKROLON FD polycarbonate sheet is covered by a five year warranty against breakage.

APPLICATIONS

Typical food applications include food processing equipment guards, bulk food bins, candy molds, sneeze guards, commercial serving bowls, and food service accessories.

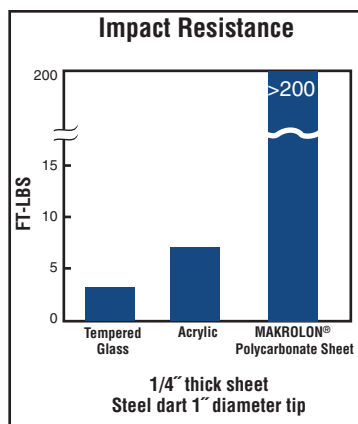
Typical medical applications include single use autoclave packaging, hospital trays, bassinets, incubators, and medical device storage containers.

HIGH IMPACT STRENGTH

MAKROLON polycarbonate sheet is virtually unbreakable with 250 times the impact strength of float glass and 30 times that of acrylic.

Typical Physical Properties

Property	Test Method	Units	MAKROLON
PHYSICAL			
Specific Gravity	ASTM D792	-	1.2
Light Transmission, Clear 1/8"	ASTM D1003	%	86
Water Absorption, Equilibrium, 24 hrs	ASTM D570	%	0.15
MECHANICAL			
Tensile Strength, Yield	ASTM D638	psi	9000
Tensile Strength, Ultimate	ASTM D638	psi	9500
Tensile Modulus	ASTM D638	psi	345000
Flexural Strength	ASTM D790	psi	13500
Flexural Modulus	ASTM D790	psi	345000
Compressive Strength	ASTM D695	psi	12500
Compressive Modulus	ASTM D695	psi	345000
Elongation	ASTM D638	%	110
Poisson's Ratio	-	-	0.38
Izod Impact Strength, Notched @ 1/8"	ASTM D256	Ft-lbs/in	12-16
Izod Impact Strength, Unnotched @ 1/8"	ASTM D256	Ft-lbs/in	60 (No failure)
THERMAL			
Coefficient of Thermal Expansion	ASTM D696	In/in/F	3.75×10^{-5}
Coefficient of Thermal Conductivity	ASTM C177	Btu-in/hr-ft ² -F	1.35
Heat Deflection Temperature, @ 264 psi	ASTM D648	F	270
Heat Deflection Temperature, @ 66 psi	ASTM D648	F	280
ELECTRICAL			
Dielectric Constant, @ 10 Hz	ASTM D150	-	2.96
Dielectric Constant, @ 60 Hz	ASTM D150	-	3.17
Volume Resistivity	ASTM D257	Ohm-cm	8.2×10^{16}
Dissipation Factor, @ 60 Hz	ASTM D150	-	0.0009
Dissipation Factor, @ 1 MHz	ASTM D150	-	0.01
Arc Resistance	ASTM D495	Seconds	
Stainless Steel Strip Electrode			10-11
Tungsten Electrodes			120
Dielectric Strength, in air, 125 mils	ASTM D149	V/mil	380



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