POLYVANTIS

PRODUCT DATASHEET

LEXAN™ 8020 FILM

DESCRIPTION

LEXAN™ 8020 polycarbonate film offers excellent custom color capability. Recent technology improvements now in effect reduce color variation by 50%. This film offers high heat resistance and superior dimensional stability for graphic art applications. Derived from one of the world's toughest polymers, LEXAN 8020 film also provides a high gloss surface finish while meeting additional requirements for added UV stability. Additional enhancements allow improved gauge control.

TYPICAL PROPERTY VALUES*

PROPERTY	ASTM TEST METHOD	UNITS (USCS)	VALUE	ISO TEST METHOD	UNITS (SI)	VALUE
Mechanical						
Tensile Strength@ Yield	ASTM D882	psi	8500	ISO 527	MPa	62
Ultimate	ASTM D882	psi	9000	ISO 527	MPa	65
Tensile Modulus	ASTM D882	psi	300000	ISO 527	MPa	2506
Tensile Elongation at Break	ASTM D882	%	100-152	ISO 527	%	100-154
Gardner Impact Strength at	ASTM D3029	ft-lb	23	ISO 6603-1	J	31
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.4-1.8		kN/m	245
Propogation	ASTM D1922	g/mil	30-55		kN/m	10-20
Puncture Resistance (Dynatup) Fold Endurance (MIT)	ASTM D3763	ft-lb	9		J	12
0.010 inch (0.25 mm)	ASTM D2176-69	double folds	130			
0.020 inch (0.50 mm)	ASTM D2176-69	double folds	35			
THERMAL						
Coefficient of Thermal	ASTM D5470	$Btu/hr/ft^2/°F/in$	1.35		W/m°K	0.2
Coefficient of Thermal Expansion	ASTM E831	$(x\ 10^{-5}/°F)$	3.2	ISO 11359	$(x\ 10^{-5}/°C)$	5.8
Specific Heat @ 40 °F (4 °C)	ASTM E1269	Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM	°F	307	ISO 11357	°C	153
Vicat Softening Temperature, B	ASTM 1525-00 Modified	°F	323		°C	160
Heat Deflection Temp. by TMA at		°F	290	ISO 75 Modified	°C	145
Shrinkage at 302 °F (150 °C)	ASTM D1204	%	1.40%			1.40%
Brittleness Temperature	ASTM D746	°F	-211		°C	-135
PHYSICAL						
Density	ASTM D792	$slug/ft^3$	2.3	ISO 1183	kg/m^3	1200
Water Absorption, 24 hrs.	ASTM D570	% change	0.35	ISO 62	% change	0.35
Surface Roughness (RMS)	ASME B46-01	-	NA			
Surface Energy	ASTM D5946-	-	34			
Surface Tension	Dyne Pens	Dyne	38-40			

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LEXAN™ POLYCARBONATE FILM & SHEET Tough, Virtually Unbreakable

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