



CLEAR POLYCARBONATE OVERLAY FILMS

Whether you need an engravable option or a clear and durable overlay, CET films deliver.

Our films are a cost effective solution to protect security-sensitive documents. Fused with other layers of polycarbonate, our films can form a single, solid sheet, which will not delaminate. This unique feature foils efforts of potential counterfeiters. CET Films' superior durability makes our solution an exceptional choice for any type of security documents.

TECHNICAL DATA SHEET

APPLICATIONS

External and internal layers of:
Identity Cards
Credit Cards
Driver's Licenses
Passports

KEY BENEFITS

DURABILITY

Polycarbonate's inherent durability provides supreme protection and strength to extend the service life of cards and documents.

LASER ENGRAVABLE OPTION

Compatible with a wide range of printing technologies.

SURFACE FINISHES

Available in standard matte and fine matte surfaces. Custom surface finishes available. Transparent custom colors available.

GAUGES

Available in standard gauges: .002" (50 microns) - .006" (150 microns) sheets or rolls. Gauges up to .020" (500 microns) also available.



CET FILMS
A NEKOOSA COMPANY

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C E T F I L M S
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TECHNICAL DATA SHEET

PHYSICAL PROPERTIES	UNIT	TEST METHOD	VALUE
Physical			
Specific Gravity, 23°C	g/cm ³	ASTM D-792	1.2
Melt Flow Index, 300°C, 1.2 kg	G/10 min	ASTMD-1248	6.5
Water Absorption, 24 hrs 73°F, 22.8°C	%	ASTM D-570	0.12-0.30
Mold Shrinkage	In/in	ASTMD-955	0.0060 to 0.0080
Thickness Tolerance (100-250 micron thick)	Micron		± 5%
Surface Roughness (Matte Finish)	Ra	ASME B46.1	.76-.80
Surface Roughness (Fine Matte Finish)	Ra	ASME B46.1	.38-.42
Optical			
Transmittance at (50-250 micron thick)	%	ASTM D-1003	Target Value 91
Haze at (50-250 micron thick)	%	ASTM D-1003	Target Value 1.6
Mechanical			
Tensile Strength, yield, .125" (4.921 mm)	PSI (MPa)	ASTM D-638	9,100 (63)
Tensile Elongation, break, 125" (4.921 mm)	%	ASTM D-638	125
Flexural Strength, 125" (4.921 mm)	PSI (MPa)	ASTM D-790	12,500 (86)
Flexural Modulus, 125" (4.921 mm)	Lb/in ² (GPa)	ASTM D-790	(330,000) 2.3
Rockwell Hardness	R-Scale	ASTM D-785	118
Impact			
Izod Impact Str., Notched, 1/4" (3.175mm)		ASTM D-256	18 (960)
Thermal			
Coefficient of Linear Thermal Expansion	(in/in/F) mm/mm/C	ASTM D-696	(3.9 E-05) 7.0E-05
Vicat Softening Temperature, Rate A	°F (°C)	ASTM D-1525	(315) 157
Heat Deflection Temp. @66PSI (4.640 GSC)	°F (°C)	ASTM D-648	288 (142)
Heat Deflection Temp. @264PSI (18,561 GSC)	°F (°C)	ASTM D-648	270 (132)
Flame Class			
Flammability	%	ASTM D 2863	
0.059in (1.5 mm) Thickness	Rating	(UL94)	HB
0.118in (3.0 mm) Thickness	Rating		HB
Electrical			
Dielectric Strength	Volts/mil (25 microns)	ASTM D-149	810
Dielectric Constant 60Hz		ASTM D-150	3
Dielectric Factor 60Hz		ASTM D-150	0.00090