

Destructible Security Film

TYPICAL PROPERTIES OF DESTRUCTIBLE SECURITY FILM

Properties based on .002" Destructible Security Film. Properties of other gauges and finishes can vary.*

Physical Properties:

Property	Typical Value	Units	Test Method
Haze (Clear**)	<4	%	ASTM D1003-92
Specular Gloss (Clear)	60 deg. >120 20 deg. >80	Gloss Units	ASTM D2457-90
Wetting Tension	>38	mN/m	ASTM D2578-84 (Method No. 15)

Mechanical Properties**:

Initial Tear Resistance	1.4	N	ASTM D1004-90
Tear Propagation Resistance	.037 +/- .005	N	ASTM D1938-92-Single Tear
Tensile Strength at Break***	66 (SD6.3)	N/mm ²	ASTM D882-91
Elongation at Break***	<5	%	ASTM D882-91
Linear Dimensional Stability	1.1	%	ASTM D1204-84 (Method No. 14)

Chemical Resistance Properties:

ASTM D543-87

Class A: Total resistance after total immersion for 7 days: Water, Ethanol Methanol, Ethyl Acetate, Toluene, Heptane, Motor Fuels, carbon Tetrachloride, Anti-freeze, Detergents, 10% Acetic acid.

Class B: Remains intact after total immersion for 7 days but has incurred dimensional changes: Benzyl alcohol, Brake fluid, trichloroethylene, 10% Potassium hydroxide, 2% salt solution, 38% Hydrogen peroxide.

Class C: Resistance after total immersion for 24 hours but dissolves within 7 days: 10% Hydrochloric acid, 10% Sulfuric acid, Glacial acetic acid, Acetone, Methyl ethyl ketone.

Effect of Moisture on Tear Strength:

The tear strength figures quoted above should be regarded a manufacturing specification used within Grafix to ensure a consistent level of temper evidence in Destructible Security Film.

Grafix Destructible Security Film is a modified form of cellulose diacetate, and as such has a certain degree of moisture sensitivity. Across a range of typical humidities, Grafix Destructible Security Film shows only a slight change in tear strength, and retains its tamper evident property. At very high moisture levels (e.g. immersion in liquid water) tear strength will increase further. However, at such high moisture levels, the film wrinkles and distorts irreversibly, itself acting as a tamper evident feature.

For further information on this aspect, contact Grafix.

SD = Standard Deviation

* Values quoted must not be regarded as forming a supply specification.

**test specimens were conditioned at 23+/-2 degrees C and 50+/-5 deg. relative humidity for at least 40 hours prior to testing.

***results dependent on the edges of test samples being cleanly cut with a very sharp cutting blade. (Guillotine is not suitable.)

Note: The above information is based on our best available knowledge. Grafix cannot accept responsibility for the efficacy of tamper evident constructions utilizing Grafix Destructible Security Film. It is strongly recommended that the customer should satisfy himself as to the fitness for purpose of all materials used.

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