and Associates

1267 House St. NE, Belmont, MI 49306 (616) 887-8257 Fax (616) 887-7910 www.lenderink.com

Premium Thermal Laminating Films

1.2 Ultra Burst - Clear Polyester Based Laminating Film

Good clarity. Very durable. Recommended for case-sides. Good abrasion resistance. Typical max value for scuff resistance at 10 cycles is 6.

1.3 Matte PET – Polyester

Very durable. Recommended for case-sides. Good abrasion resistance. Typical max value for scuff resistance at 10 cycles is 2.

1.3 Clear PGS – Printable Glue-able Stamp-able Polyester

High Clarity polyester base film is engineered to be receptive to inks, glues and foils and hot stamping. Good abrasion resistance. Typical max value for scuff resistance at 10 cycles is 6.

1.2 Clear Nylon

Excellent clarity. Resists curling and is recommended for soft covers and jackets. Good scuff resistance. Typical max value for scuff resistance at 10 cycles is 6. Can be foil stamped, printed or glued. We recommend that inks, glues & foils are qualified for this application.

1.3 Standard Matte Nylon

Provides the same non-curling characteristics as clear nylon film. It has good scuff resistance. Typical max value for scuff resistance at 10 cycles is 2. Matte Nylon film has a dull finish/low gloss level. The scuff is more apparent /visible because of the chalky characteristics of the film (opposed to a clear nylon film). This scuffing is more noticeable on dark solid covers. Can be foil stamped, printed or glued. We recommend that inks, glues & foils are qualified for this application.

1.3 Scuff Resistant Matte Nylon

Provides the same non-curling characteristics as clear nylon film. Superior scuff resistance. Typical max value for scuff resistance at 75 cycles is 1. Excellent durability. Accepts spot UV printing extremely well.

1.2 Clear OPP (Polypropylene)

Good clarity. Very economical. Very soft film and prone to scuffing. Typical max value for scuff resistance at 10 cycles is 14. This scuffing is more noticeable on dark solid covers. Sheets will curl when exposed to high humidity.

1.3 Matte OPP (Polypropylene)

Very economical. Very soft film and prone to scuffing. Typical max value for scuff resistance at 10 cycles is 2. Matte OPP film has a dull finish/low gloss level. The scuff is more apparent/visible because of the chalky characteristics of the film (opposed to clear OPP film). This scuffing is more noticeable on dark solid covers. Corona treated surface for spot UV printing. *Note – because of the variables in the chemistry & process of spot-UV printing we strongly recommend a qualification process.

1.3 Scuff Resistant Matte OPP (Polypropylene)

Superior scuff resistance. Typical max value for scuff resistance at 75 cycles is 1. Excellent durability.

Note: All information and suggestions contained herein, including, without limitations stated values (collectively the "information") shall be used only as a guide by Purchaser and not for specification or any other purpose. The information does not constitute a warranty nor guaranty of any type whatsoever. Purchaser should independently determine the suitability of all material purchased and must confirm adaptability and other characteristics by conducting its own tests. Lenderink Technologies shall have no liability as a result of any loss, expense, damage, cost or other injury which results from Purchaser's reliance on the information.

^{**}Higher values indicate a higher, more visible degree of surface scuffing with the exception of standard matte films because of their unique characteristics.

Standard mattes are tested at 10 cycles and should not be compared to Scuff Resistant mattes tested at 75 cycles. Typical Maximum is the acceptable range encountered with our standard films. These values are referenced when qualifying any new book jacket materials. These are internal guidelines to judge film performance. It is the customer's responsibility to make the final determination of suitability.



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CLEAR OVERLAY FILMS

With #600 Heat Activated Adhesive

DESCRIPTION:

Laminating film, high-clarity, abrasion-resistant polyester-base film designed for high speed single-sided, double-sided, heated platen, nip roll or vacuum press laminating.

CHARACTERISTICS:

Wood Veneers

Ideal for laminating book jackets, posters, menus and maps as well as a wide variety of commercial applications that demand clarity and protection.

#600 Low-melt-point adhesive

Approx. 210°F at glue line Nip roll 250 – 325°F

Platen press 310 – 350°F Water, oil, acid and alkali resistant

Can be die cut

Colors & silver available

#600 Adhesive	???	.0025"	.002"	.004"	.003"	???	.003"	.002"	.008"	???	.003"	.008"	ASTM
Thickness ±10%	Inches	.003	.003	.005	.005	.005	.007	.007	.010	.010	.010	.015	D2103
Surface Tension – Adhesive Side	Dynes/ cm	44 to 52											D2578
Coefficient of Friction – Base Film Side	Kinetic	0.45 to 0.55											D1894
Tensile Strength – MD ± 10%	PSI	4,320	8,280	4,970	12,000	18,000	17,140	21,420	6,000	12,000	21,000	14,000	D882
Tensile Strength – TD ± 10%	PSI	4,550	8,710	5,225	12,800	19,200	18,280	22,850	6,400	12,800	22,400	14,930	D882
Elongation – MD	%	90	90	90	110	120	120	120	110	120	130	130	D882
Elongation – TD	%	80	80	80	100	110	110	110	100	110	120	120	D882
Yield	In²/lb	9,065	8,505	5,380	4,910	4,545	3,315	3,160	2,670	2,475	2,330	1,615	D4321
Laminating Temp. Range - Internal	°F	210 to 230											
Bond Stength – Laminated to itself	Lbf/in	7	10	18	15	15	20	15	15	20	15	20	