



Ecosystem Film Laminators - Since 1996

Ecosystem, manufactured in Northern Italy, has been producing Thermal, and Water-based Film Laminators for 25 years. Headquartered just two hours drive from both Milan and Venice, Ecosystem produce (5) Film Laminator series: the Quick, Compact, Dry, Aqua and Best lines.

Film lamination, or more specifically, applying a film material atop a paper-based substrate is the combination of your machine's ability to maintain a consistent a). heating temperature, b). roller pressure, and c). film separation technique.

Equally as important is an understanding of what films work with your machine, and how other films out in the market might give you the competitive edge with your next client. Below are various films to consider..

Types of Laminates

Polypropylene (PP) –

The category of Polypropylene (PP) films includes the Single Oriented Polypropylene (OPP), and Biaxial Orientation Polypropylene (BOPP) derivatives. These film types protect product from dust, scuffs, scratches and moisture. They are recyclable, involve less carbon footprint to produce and are widely considered the most environmental or sustainable choice.

PP, OPP and BOPP films are the most common in the Graphic Arts industry, and are the easiest to separate. You can separate the film with a burster, flying knife, or hot knife. Example Polypropylene films you may have heard of include "Gloss", "Matte" and "Soft Touch".

All Ecosystem machines can laminate Polypropylene style films.

Polyester (PET) –

More scientifically, Polyethylene Terephthalate (PET), like Polypropylene films, can be in single orientation or biaxial orientation. Polyethylene Terephthalate is used and recognized across many industries: textiles, plastic containers for food & beverage, or say, thermoforming manufacturing. The production of PET is a combination of industry need (technology) and chemistry. The result, for Graphic Arts, is an inverse relationship between film strength and film cost.

When using PET, do your homework, and sample test multiple film supplier's product on your printed sheets. Then cross-reference the results with the cost of the film.

Because PET films vary widely, we don't categorize which of our Ecosystem machines can be utilized. For example, a traditional "rule of thumb" would be that most Polyesters require a flying knife, or hot knife option yet technology is advancing so quickly that we've recently been able to separate PET films with a standard buster. This means, in theory, that any of our machines can now be utilized with PET films.

Nylon (PA) –

Scientifically known as Polamide (PA) films, Nylon is the more common nomenclature. Nylon films are chosen when the product application requires superior protective finishing. In relation to PPs and PETs, Nylon has a relatively higher melting point giving the film an exceptional strength.

Whereas Commercial Print and Publication work typically leans towards Polypropylene and Polyester finishes, the Packaging market – and the need to "protect" the products that go inside cartons – is where Nylon is used more frequently.

Ecosystem machines – such as a Compact 76, a Quick 106, or a JPN 102 Dry – with optional Hot Knife can handle Nylon films.

Metallized –

A niche part of the film lamination market opts to film laminate blank, carton board in advance of printing. They are typically covering (laminating) paperboard with metallized film, which they'll then feed into their Press and print on. The metallic film provides attention grabbing characteristics. Example: toothpaste boxes.

Like Polyester films, Metallized films are now no longer separated by flying, or hot knives. Consult a film distributor to see if their material can be burst!

Ask a Specialist

Derprosa Films – Since 1988
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Have some film you want to test? We'd love to "give it a go"! Send us more details, or sample paper and see if your potential film partner is willing to ship test film to our Wisconsin showroom!



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