Product code	Film	
Pello glossy 120	Clear, PVC Phthalate free	
Pello matt 130	Matt, PVC Phthalate free	
Pello Bio glossy 320	Clear, Bio based PE	
Adhesive	Acrylic-based dispersion adhesive, with a delay in the adhesive to allow minor corrections to be made	before setting
Paper	Siliconized, printed release paper	
Properties and differences between plastics		
Cutting / slitting	PVC cuts both ways very well, BIO based PE quite well and PP only one way well	
Heat resistance	Plastic grades have different coefficients of thermal expansion. Typically, PE and PP plastics have ma	any times the thermal expansion of PVC. PVC
	is therefore the most heat resistant, while PP and PE expand and shrink under high thermal fluctuation	ins.
Recycling	Bio-based PE and PP are recyclable plastics, PVC mixed waste	

Books are mainly kept at room temperature, both in libraries and in households. When the book film is well glued to the cover, changes in temperature do not cause problems and no differences have been found between different grades of book films in the test. If the temperature of the plasticized book is significantly higher than the temperature at the time of lamination, the film tends to expand and lift itself away from the book cover. At some point, the force of the expansion exceeds the adhesion of the glue and the plastic peels away from the cover. When the temperature drops to normal, the plastic does return to its original dimensions. However, if the torn adhesive surface has a coating or wax adhering to it from the book cover, this often prevents the film from fully adhering again. Adhesion can be improved by applying sufficient pressure.

The use of different surface treatments on book covers has become more common, at least among some publishers. Some of these coatings make it difficult for the book film to adhere to the cover. Often the coating itself is also poorly adhered to the cover and most of the problems (the book film peeling off the cover) are caused by this. On the positive side, the book film prevents the coating from sticking to the reader's hands - even if the book would look unattractive. This treatment peeling of the cover is nothing new, but it is on the increase these days. And the thermal expansion properties of PP and PE only serve to highlight what has happened in these cases. If the book film is not properly bonded to the cover, thermal effects can be seen, especially for PP and PE at temperatures above 40°C. The plastic also adheres worse to books with fabric surface.

Here are a few photos showing how the poor lacquer / surface treatment affects the book film.

These 3 photos show that the lacquer has been poorly attached to the book and therefore also the book film has come loose from cover.







Now similar books are again covered with book film. These books have been outside in sunshine for about 4-5 hours and they are fine



So same (similar) book and same book films. In some cases the book film loses from the cover because the lacquer is poorly attached to the book. When the lacquer is ok, also the book film sits nicely.

In the pictures below you see the book without any book film. It can be seen, that the lacquer is already broken and unevenly attached on the cover.





This photo also shows a poorly attached surface treatment. The book film was laminated on a book and then taken away and the treatment that was on a book can now be seen on the book film. You can even read the name of the book on the film. For this reason the book film does not adhere back to the book.

