



Pentacard®

Films for card applications



klöckner pentaplast



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Fecha de
Caducidad

JUAN PEREZ

09/13



Kfz
Kfz

innovation. delivered.

Our films deliver

Every day, across the globe, innovative companies are using kp films to develop new card applications. With Pentacard®, a full range of films for card applications, kp delivers. Our films can be used for every imaginable kind of card, from a high secure passport to a non-secure promotional card. Are you competing in the credit, debit, or phone card business? Do your clients need RFID contactless cards, access control cards, smart cards, or high secure IDs? Do you promote your business with loyalty, gift, scratch-off, or membership cards? kp has the right film for you.

Cards made with kp films give you a competitive advantage. Our specially formulated films offer exceptional processing and superior printability, so designs make an impact. Cards made from kp films are durable and consistent order after order.

At kp, we know that innovative card films can expand your business. Challenge us with a new product or idea, and we will develop the optimal card film. With Pentacard® card films, kp delivers.

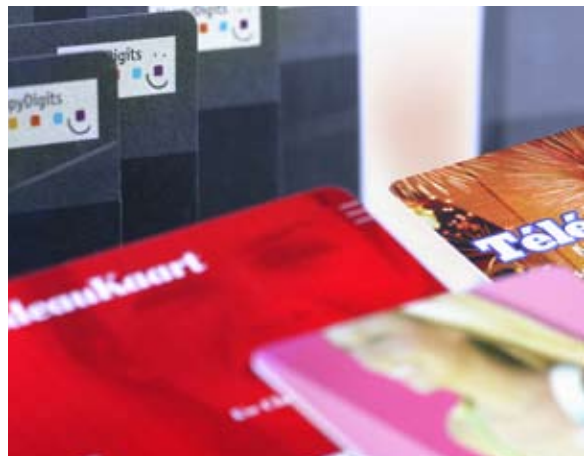




solutions.
delivered.

Innovative products that meet your needs

Pentacard® is the most comprehensive card film line in the industry. We offer a full range of core films for single and multi-layer cards in various polymers. Our broad portfolio of overlay films is available in coated and uncoated, with or without magnetic stripe. Combine core and overlay films to get the combination that works for you. And if you need a new film, our engineers will design a custom formulation. With kp, the opportunities are endless.





Pentacard® films overview

brand name & polymer	end-use application		core film technical requirements					core film card construction		core film printing process				overlay film technical requirements						magnetic stripe widths					
	secure (credit, RFID, access control, passport, identification, ICAO)	non-secure (gift, loyalty, hotel key, promotional)	thickness range (microns)	Vicat A or heat deflection temperature	RFID (contactless) compatible	magnetic stripe compatible	chip compatible	solid (single-layer)	split (multi-layer)	UV offset	oxidative offset	silk screen	digital	thickness range	Vicat A temperature	coated (full-bleed design)	uncoated (non full-bleed design)	magnetic stripe compatible	laser engravable	D2T2 compatible	thickness range	Vicat A temperature	8.4mm or .330" wide	12.7mm or .500" wide	
Pentacard® core films	Pentacard® PVC	✓	✓	100-820 μ	max. 88°C VICAT	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	
	Pentacard® PVC/ABS	✓		100-820 μ	max. 100°C VICAT	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	
	Pentacard® SecondLife™ rPVC	✓	✓	191-812 μ	max. 84°C VICAT	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	
	Pentacard® PETG	✓	✓	100-400 μ	max. 100°C VICAT	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	
	Pentacard® HIPS		✓	250-2032 μ	max. 100°C HDT		✓		✓		✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	—
	Pentacard® Biofilm™ PLA		✓	400-760 μ	max. 58°C HDT		✓		✓	✓	✓	✓	✓	—	—	—	—	—	—	—	—	—	—	—	—
Pentacard® overlay films	Pentacard® PVC	✓	✓	—	—	—	—	—	—	—	—	—	—	25-180 μ	max. 86°C	✓	✓	✓	✓	✓	—	—	—	—	
	Pentacard® PETG	✓	✓	—	—	—	—	—	—	—	—	—	—	50,80,150 μ	max. 74°C	✓	✓	✓	✓	✓	—	—	—	—	
Pentacard® magnetic stripe on overlay films	Pentacard® LoCo* (300 oersted)	✓	✓	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46-125 μ	max. 86°C	✓	✓	
	Pentacard® HiCo* (2750 oersted)	✓	✓	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46-125 μ	max. 86°C	✓	✓	

* Other tape products available upon request



card films

Core films

Use kp core films for single and multi-layer cards. These films deliver absolute consistency, superior performance for improved card yield, uniform sheet squareness, excellent color consistency, exceptional printability, and easy die cutting. Films are available in transparent and translucent colors; matte/matte, matte/gloss, and gloss/gloss finishes.

We offer a complete range of products:

- Films for secure, non-secure, contact chip, and contactless proximity (RFID) cards
- High vicat films for GSM and high heat/stress applications
- High-impact films for durability
- High heat-stable films for extreme environment applications
- Coated core films available upon request

Overlay films

Pentacard® overlay films ensure high clarity and superior graphic visibility for your graphics. Our overlay films deliver exceptional performance: gauge control, color consistency (before and after lamination), and bond strength that exceeds ISO standards.

Our complete range of overlay products includes:

- Coated and uncoated
- Adhesion to UV, oxidative, digital, or silk screen inks
- Various adhesive coatings available
- Thermoprintable and laser engravable films
- Various vicat (temperature resistant) films
- Full range of thicknesses available in rolls or sheets



Overlay films with magnetic stripe

kp is the only global manufacturer offering overlay film with the magnetic stripe already adhered. This eliminates a step in your manufacturing process, saving time and expense. We manufacture magnetic-stripe dimensions according to your specifications. The film is suitable for numerous card types and available in rolls or sheets.

Two types of magnetic coercivity are standard: LoCo (300 oersteds) for retail and gas cards and HiCo (2750 oersteds) for credit and smart cards. We can also work with you to develop other specifications.

Overlay coatings

All inks require an adhesive layer between ink and overlay to provide a superior bond, so we offer a complete range of suitable coatings for all kp overlay films to enhance bond strength. These adhesives can be used with UV (offset or silk screen) and oxidative inks. They meet or exceed ISO peel strength standards and are available in rolls or sheets. And we have designed specific coatings to prevent distortion during lamination; offer a wider processing window; and for tape-layer applications which utilize high-speed equipment.



performance.
delivered.

Advanced technology, global sourcing

Since the first film rolled off a kp calender line in 1966, we have continually invested in state-of-the-art calendering, extrusion, and coating equipment. When you buy kp film, you know it will perform on your machinery. Our plants execute your orders consistently, meeting precise specifications for color, surface, thickness, formulations, and function every time. This means we can offer a guaranteed gauge tolerance of 5%, so you can write tighter specifications for cost savings. Raw materials are completely traceable and maximum packaging integrity means your film arrives clean.

To meet the needs of global companies, we use kp advanced technology at manufacturing sites around the world—in Asia, Europe, North and South America. Wherever you manufacture cards, we supply the identical Pentacard® core and overlay film, quality-certified for consistent formulation and traceability. Global sourcing ensures security of supply. We work with you wherever you print cards, and are unique in backing every order with outstanding local technical and customer service.

kp plants are ISO 9001:2000, 9001:2008, 14001:2008, EMAS, and Ohris certified. We manufacture according to the current GMP and HACCP standards.





Solutions for a changing world

Our innovative portfolio of card films provides options to help you meet your social, economic, and environmental sustainability goals without sacrificing performance and cost. At kp, we opt to provide our customers with the environmental profile of each potential card substrate using life cycle data to allow the customer to make the most informed choices among our substrate options.

Pentacard® vinyl films minimize resource consumption without compromising clarity, flex, dimensional stability, heat deflection, and embossing. All vinyl is derived from 57% common salt, a virtually limitless resource, and 43% fossil fuels, generating far fewer greenhouse gas emissions and using less energy than comparable card products made from alternate materials.

kp Pentacard® SecondLife™ rPVC films are made with post-industrial scrap. This means you can produce a traditional financial transaction card with either 25% or 50% recycled content. Pentacard® SecondLife™ rPVC films offer all of the environmental attributes of PVC, plus the added advantage of further reducing the drain on natural resources by replacing virgin resin with recycled resin. These films further reduce CO2 emissions to the environment and conserve valuable landfill space by keeping material that would have been discarded out of the landfill.





support.
delivered.

Our people stand behind our products

At kp, our people are there to help you make the most of Pentacard® film. Our sales force is the best-trained in the industry. They work hand-in-hand with engineers to meet your needs. kp is unique in backing every order with outstanding local technical and customer service. Our customer service teams, stationed across the globe, ensure on-time delivery wherever you need it. We also offer the industry's most comprehensive technical support. Our technicians will visit you on-site for consulting, troubleshooting, and training. Wherever you manufacture cards, we're there to work with you.





results. delivered.

A world leader in film

At kp, we believe in meeting the needs of our customers comprehensively, with the highest quality films, the broadest range of formulations, and service and support from beginning to end. We offer the strength and stability of a global company, delivering results to you wherever you are.

Innovation. Solutions. Performance. Support. Results.
kp films deliver.

Film options

- Customized formulations
- Matte/matte, matte/gloss, gloss/gloss, or embossed surfaces
- Clear, tinted, and opaque colors
- Customized film thicknesses
- Customized roll widths



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