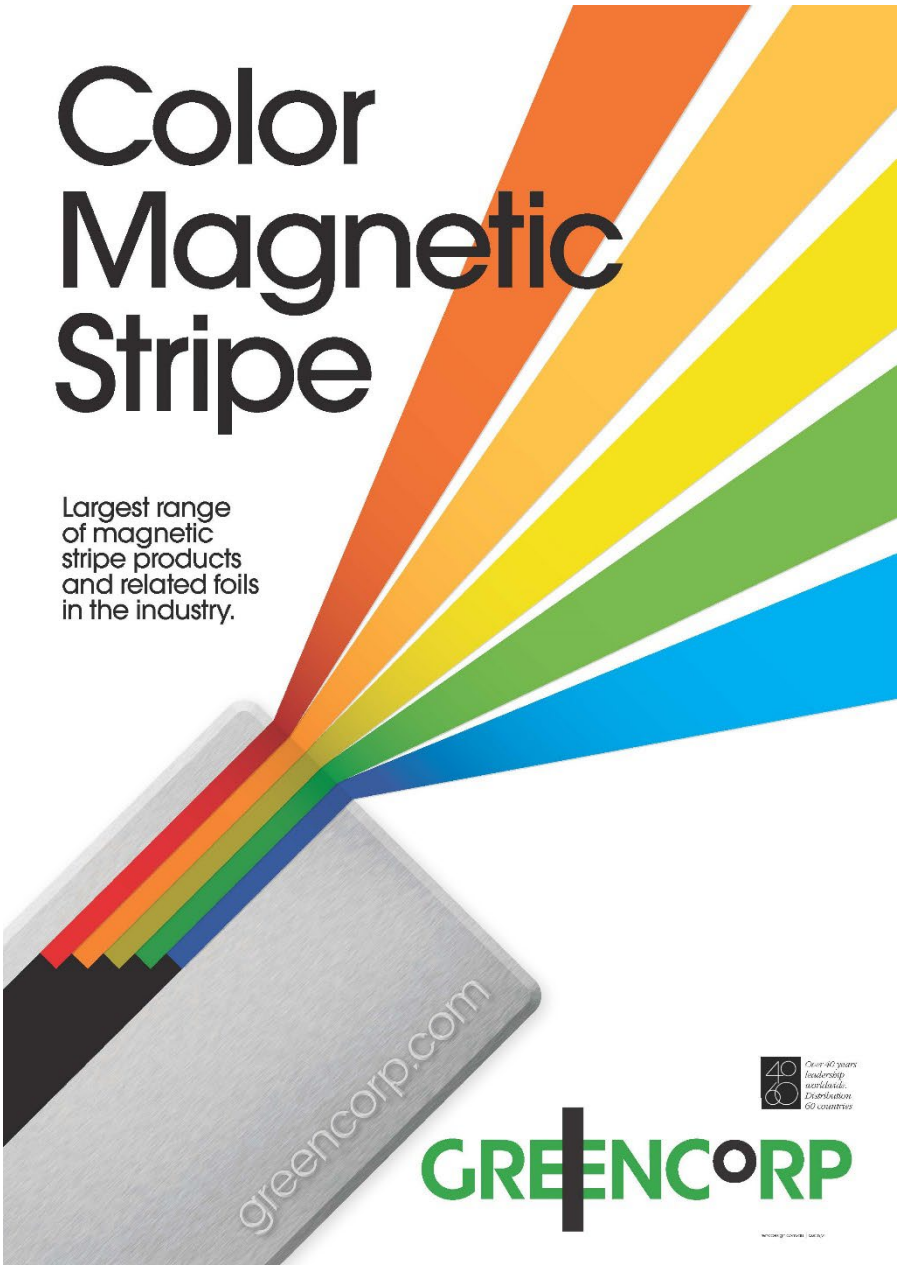
TECHNICAL DATA & PRODUCT GUIDE

July 2025



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GREENCORP

ahead in service

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Introduction

Greencorp Pty Ltd, operating since 1972, is a globally recognized expert in magnetic stripe technology for cards and tickets. Our reputation is built on dedicated research and development, manufacturing to stringent standards, and a commitment to continuous improvement. With ISO 9001 accreditation, rigorous testing using advanced equipment, and direct client access to their expert technical team, Greencorp guarantees high-quality, reliable magnetic stripe solutions.

The manufacturing facility located in Sydney, Australia, is modern, efficient and strategically located for both domestic and international customers. Greencorp has a large production capacity and works with its customers to schedule timely deliveries to suit customer production requirements.

Greencorp has been accredited to the ISO 9001 quality system and rigidly enforces its quality policy. Greencorp believes the entire system from order entry to delivery should be quality based, thus assuring our customers the best combination of product, service and reliability. All Greencorp products are tested to ISO standards in conjunction with sophisticated magnetic and electronic testing equipment including a VSM, BH Meter and *Mag 3X* ® analyser.

When you deal with Greencorp you will be impressed with our degree of technical liaison, something in which we pride ourselves as being unique in this industry. The highly qualified chemists and chemical and electrical engineers are at your disposal. You have access to the very people that developed the products.

If dealing with a reliable and innovative supplier of magnetic stripe is your goal, call Greencorp today.

Product Selection Matrix

Glue Down

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
G2L	Glue Down	300	None	Brown	None	110%	Reinforced	Tickets for parking & transportation	Paper
GNL 650	Glue Down	650	None	Black	None	110%	Reinforced	Tickets for parking & transportation	Paper
GNH	Glue Down	2750	None	Black	None	125%	Reinforced	Tickets for public transportation	Paper
GNH 4000	Glue Down	4000	None	Black	None	105%	Reinforced	Tickets for public transportation	Paper

Lamination

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
LAL J39	Lamination	300	Plastic	Black	110-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
LAL J40	Lamination	300	Plastic	Brown	110-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
LAL N39	Lamination	650	Plastic	Black	110-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
LAH F39	Lamination	2750	Plastic	Black	110-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
LAH E39	Lamination	4000	Plastic	Black	110-160°C	**A**-160% **B**-105%	Protective coating	Plastic cards, Bank cards	PVC

Transfer

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
TAL J21	Transfer	300	Plastic	Black	140-160°C	100%	Thinner Carrier	Plastic cards, Bank cards	PVC
TAL J23	Transfer	300	Plastic	Brown	140-160°C	100%	Thinner Carrier	Plastic cards, Bank cards	PVC
TAL J26	Transfer	300	Plastic	Black	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
TAL J28	Transfer	300	Plastic	Brown	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PET
TAL J29	Transfer	300	Plastic	Brown	140-160°C	**A**-100% **C**-115%	Protective coating	Plastic cards, Bank cards	PVC
TAL J41	Transfer	300	Plastic/Paper	Brown	140-160°C	105%	Protective coating	Plastic cards, Bank cards	PVC/Paper
TAL J44	Transfer	300	Paper	Brown	130-150°C	**A** 110% **C**-115%	Protective coating	Parking and highway tickets	Paper
TAL K37 OD	Transfer	300	Paper	Brown	130-150°C	110%	Protective coating	Bank book laminated	Paper/PP
TAL K37 BOD	Transfer	300	Paper	Black	130-150°C	110%	Protective coating	Bank book laminated	Paper/PP
TAL K48 OD	Transfer	300	Paper	Brown	130-150°C	110%	Protective coating	Bank book single	Paper
TAL K48 BOD	Transfer	300	Paper	Black	130-150°C	110%	Protective coating	Bank book single	Paper
TAL J49	Transfer	300	Paper / Plastic	Brown	130-150°C	**A**-110% **C**-115%	Protective coating	Parking and Plastic cards	Paper/PVC
TAL J53	Transfer	300	Paper	Black	130-150°C	110%	Black Colour	Paper Tickets	Paper
TAL N28	Transfer	650	PET	Black	140-160°C	**A**-100%	Protective Coating	Plastic cards, Bank cards	PET
TAL N29	Transfer	650	Plastic	Black	140-160°C	**A**-100%	Protective coating	Plastic cards, Bank cards	PVC
TAL N37	Transfer	650	Paper	Black	130-150°C	105%	Protective coating	Bank Books	Paper/PP
TAL N43	Transfer	650	Plastic/Paper	Black	130-150°C	105%	Protective coating	Tickets for parking & transportation	Paper
TAL N64	Transfer	650	Paper	Black	130-150°C	105%	Protective coating	Tickets for parking and hotel	Paper
TAH F23	Transfer	2750	Plastic	Black	140-160°C	**A**-100%	Thinner Carrier	Plastic cards, Bank cards	PVC
TAH F27	Transfer	2750	Plastic1	Purple/Black	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
TAH F28	Transfer	2750	Plastic	Black	140-160°C	100%	Protective Coating	Plastic cards, Bank cards	PET

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
TAH F28-22	Transfer	2750	Plastic	Black	140-160°C	100%	Protective coating	PC	PC
TAH F28-33	Transfer	2750	Plastic	Black	140-160°C	100%	Protective coating	PET	PET
TAH F29	Transfer	2750	Plastic	Black	140-160°C	**A**-100% **C**-110%	Protective Coating	Plastic cards, Bank cards	PVC
TAH F32D	Transfer	2750	Plastic	Black	140-160°C	**A**-100% **C**-110%	Coated Overlay	Plastic cards, Bank cards	PVC
TAH F37	Transfer	2750	Paper	Black	130-150°C	105%	Protective coating	Laminated Bank book	PVC
TAH F41	Transfer	2750	Paper PVC	Black	140-160°C	**A**-105% **D**-105%	Protective coating	Cards / Tickets Press Polish	Paper PVC
TAH F43	Transfer	2750	Paper	Black	130-150°C	**A**-112% **C**-120%	Protective coating	Cards / Tickets	Paper/PVC
TAH F48	Transfer	2750	Paper	Black	130-150°C	105%	Protective coating	Bank Book Single or AZ Machines	Paper
TAH F64	Transfer	2750	Paper	Black	130-150°C	**A**-112% **C**-120%	Protective coating	Tickets for public transportation	Paper
TAH E23	Transfer	4000/3600	Plastic	Black	140-160°C	**A**-160% **B**-105%	Thinner Carrier	Plastic cards, Bank cards	PVC
TAH E29	Transfer	4000/3600	Plastic	Black	140-160°C	**A**-160% **B**-105%	Protective coating	Plastic cards, Bank cards	PVC
TAH E41	Transfer	4000/3600	Plastic/Paper	Black	140-160°C	**B**-105%	Protective coating	Plastic Cards, Bank Cards	PVC/Paper
TAH E43	Transfer	4000/3600	Plastic/Paper	Black	130-150°C	**B**-112%	Protective coating	Tickets for public transportation	Paper
TAH E64	Transfer	4000/3600	Plastic/Paper	Black	130-150°C	**B**-112%	Protective coating	Tickets for public transportation	Paper

Colors (small selection)

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
MDS	Transfer	300/2750	Plastic	Metallic Silver	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MLG	Transfer	300/2750	Plastic	Metallic Gold	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MLB	Transfer	300/2750	Plastic	Light Blue	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MB	Transfer	300/2750	Plastic	Dark Blue	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MDP	Transfer	300/2750	Plastic	Dark Purple	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MR	Transfer	300/2750	Plastic	Metallic Red	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MO	Transfer	300/2750	Plastic	Orange	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MGR	Transfer	300/2750	Plastic	Metallic Green	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
Logo	Transfer	300/2750	Plastic	Custom	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MDS	Lamination	300/2750	PVC	Metallic Silver	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC
MLG	Lamination	300/2750	PVC	Metallic Gold	140-160°C	100%	Protective coating	Plastic cards, Bank cards	PVC

Up to 60 colors available also custom colors with MOQ of 24 x 12.7mm or 36 x 8.4mm.

Single Card (AZ)

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
TAL K44	Roll On	300	Paper	Brown	170-190°C	105%	Protective coating	Paper Cards	PAPER
TAL K54	Roll On	300	Plastic	Black	170-190°C	105%	Protective coating	Paper Cards	PAPER
TAH K54	Roll On	2750	Plastic	Black	170-190°C	105%	Protective coating	Paper Cards	PAPER

Label Stock

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
G2L K200	Label	300	None	Brown	None	110%	Reinforced	Conversion	Paper
GNL N200	Label	650	None	Black	None-	105%	Reinforced	Conversion	Paper
GNH F200	Label	2750	None	Black	None-	105%	Reinforced	Conversion	Paper

Hot Stamping

Product Code	Application Method	Coercivity Oe	Adhesive Type	Color	Application Temperature	Window Output	Special Features	Typical applications	Recommended Substrate
SP JAT006	Roll On/Hot Stamp		Plastic	Matte Clear	140-180°C	-	-	Signature Panel, Plastic cards, Bank cards	PVC
SP JAT008	Transfer		Plastic	Matte Clear	140-180°C	-	-	Signature Panel, Plastic cards, Bank cards	PVC
SP JAW006	Roll On/Hot Stamp		Plastic	Matte White	140-180°C	-	-	Signature Panel, Plastic cards, Bank cards	PVC
SP JAW008	Transfer		PET/Plastic	Matte White	140-180°C	-	-	Signature Panel, Plastic cards, Bank cards	PVC
SPDB018	Roll On/Hot Stamp		PET	Matte White	140-180°C	-	-	Signature Panel, Plastic cards, Bank cards	PET
SPSSB	Roll/Hot Stamp		Plastic	Matte White	140-180°C	-	Blue Adhesive	Signature Panel Safe Sig, Plastic Cards	PVC
SPSSPHS	Hot Stamp		Plastic	Matte Printed	140-180°C	-	Printed Safesig	Signature Panel Safe Sig, Plastic Cards	PVC
SPSSPHR	Roll On		Plastic	Matte Printed	140-180°C	-	Printed Safesig	Signature Panel Safe Sig, Plastic Cards	PVC
SPSSPHSB	Hot Stamp		Plastic	Matte Printed	140-180°C		Printed Safesig/Blue Adhesive	Signature Panel Safe Sig, Plastic Cards	PVC

The Greencorp advantage

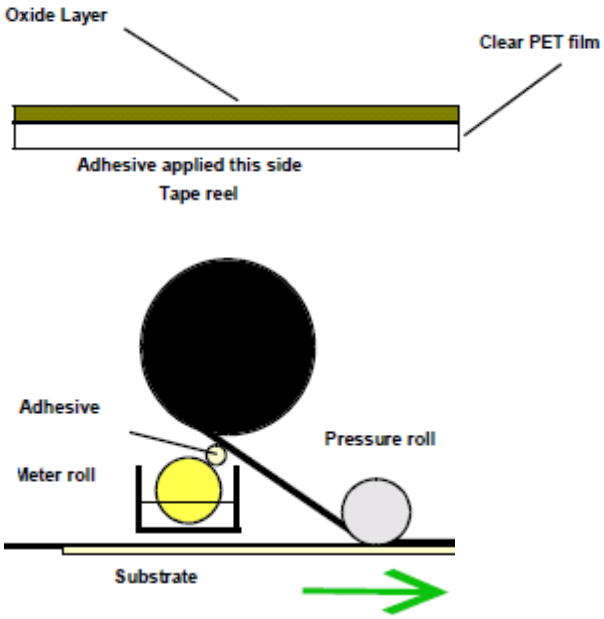
- A full range of products for most applications. The industry's widest.
- No matter what use you have for magnetic stripe - Greencorp has a product to suit. If you have a specialist need, we would be happy to talk with you about developing your requirements. Greencorp has the slitting capability for 3.15, 3.81, 4.5, 5, 6.35, 6.5, 7.3, 8.4, 9.6, 10, 11.7, 12.7, 14.3, and 16mm widths*
- In house research and development for those specialist needs.
- Comprehensive quality assurance program.
- International reputation for innovation and experience.

* Subject to minimum order requirements, all products can be manufactured in these widths for either PVC or Paper application

Types of mag-stripe

Glue-down lamination tape for Paper tickets

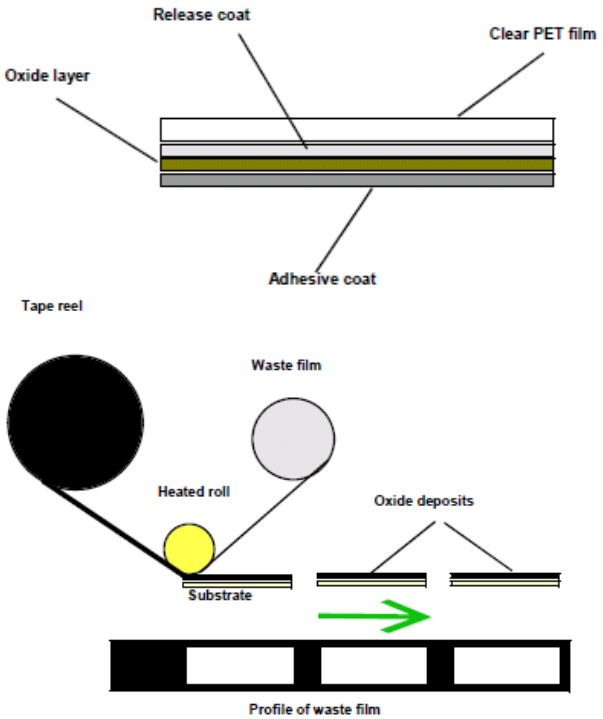
As the name suggests, this tape is glued to the substrate using an adhesive of the customer's supply. The adhesive, usually water-based, is applied to the reverse side (carrier film) and then rolled onto the product. The main use for this type of product is for paper tickets. Tape construction is as follows:



Franklin type, hot stamp or roll on transfer tape

Hot roll on tape is used on Franklin style or hot stamping machines. These machines use a heated roller with a width equal to the final mag-stripe width. The tape used is slightly wider than the heated roller and, only the area of tape touched by the roller remains on the substrate (see below):

The composition of the tape differs from the glue-down types, because it is coated with a suitable heat activated adhesive on the reverse side. It also has a release coating on top of the oxide layer to ensure that the PET carrier separates freely from the applied tape.

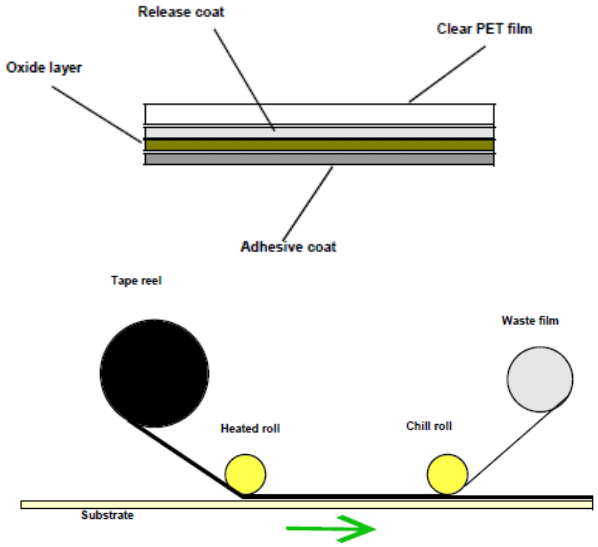


Types of mag-stripe (cont'd)

Heat Transfer (cold-peel) tape

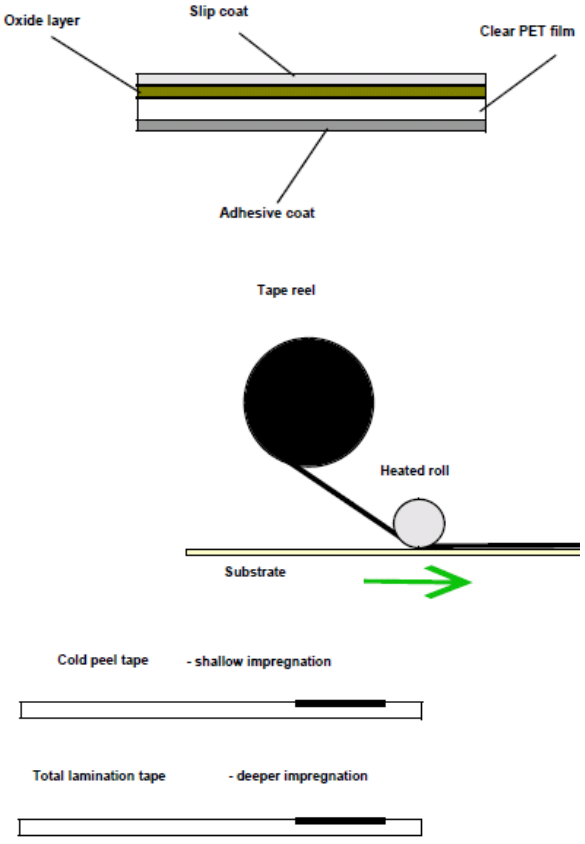
Cold peel tapes have the same construction as the hot roll on types, but they are designed to adhere to the substrate in a continuous "stripe" rather than discontinuous sections. The name cold-peel comes from the characteristics of the tape, which allow the PET carrier film to be "peeled" away once the adhesive has cooled. This carrier film is rewound on to a spool and discarded.

Various adhesive types are used, depending on the kind of substrate for which the stripe is required to adhere. The most common materials in use today are paper or PVC.



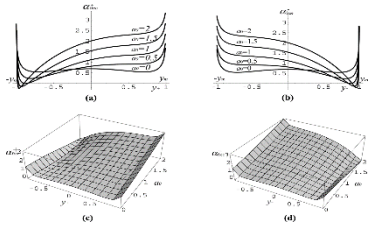
Total Lamination tape

Total lamination tape differs from the cold-peel tape in so far as the PET carrier film remains with the tape when it is adhered to the substrate. This type of tape has mainly been superseded by cold-peel types because the thicker overall material, when laminated in plastic transaction cards, produced weakness "compressions" along the tape edges (see below):



GREENCORP ahead in service

What is Coercivity?



Coercivity - in simple terms, it is a measure of the tape's ability to resist erasure of data by external magnetic influences.

LoCo Tape - is moderately resistant to data erasure and is ideal for tickets, membership cards, and general use.

HiCo Tape - has a greater level of resistance to loss of data, which makes it ideal for higher security applications such as credit and ID cards.

Coercivity is measured in ***Oersted***

The most commonly used **LoCo** tapes are **350 and 650 Oersted**. **HiCo** tapes are presently made at **2,750, 3500 and 4,000 Oersted.**

How can we verify Coercivity?

During the manufacture of magnetic stripe tapes, Greencorp selects the correct oxide materials and then checks the coercivity of the product throughout the various stages of production.

The "preferred" method, according to ISO Standards, involves testing of the final coating by using a Vibrating Sample Magnetometer (VSM). Greencorp has its own VSM, supporting various other important pieces of test equipment such as a BH meter.

ISO Specification

1. ISO is the International Standards Organisation. This body sets the standards for a wide range of products and services.

2. The most important standards for these products are the ones relating to mag-stripe performance **ISO 7811-2, ISO 7811-8** and **ISO 7811-6**.

3. Above 3 standards also set the required standard for testing of laminated stripes. Greencorp use industry leader Q Card's *Mag-3*® analyser, to automatically test cards and ensure that the stripe will meet the customer's needs. The *Mag-3*® tester provides detailed print-outs and "window" plots to verify performance. This information is shipped with each delivery of Greencorp tape for you to pass on to your customers as required.

Common Terminology

Adhesive or size coat	Often not considered important but is critical to the mechanical performance of the tape. Different types are available for the various substrates - PVC and paper adhesives are generally not interchangeable and orders **must** specify the required substrate.
Collator	Machine for cutting, aligning and stacking the three PVC card components, prior to lamination.
Lamination plates	Flat, polished, sheets of metal which ensure good heat transfer and "shiny" finish to the stripe surface when laminating cards.
Laminator	Machine which uses heat and pressure to "bond" the PVC "layers" used in plastic card manufacture.
Magnetic Slurry	The main competition to mag-stripes in the low-cost paper ticket area. The slurry is "printed" as a stripe. Initial cost is lower than tape but the abrasiveness from the rougher surface can mean far more frequent reader head replacement costs.
Over-coat	Coating applied over the stripe's oxide layer to improve its durability and chemical resistance. Also referred to as a top-coat.
Overlay	Clear film, laminated to both sides of the printed PVC sheet, to give "shine" and durability to plastic cards.
Release coat	Coating applied to the stripe's carrier film, in transfer or cold-peel tapes, to ensure ease of "peeling" away from the oxide layer.
Tape layer	Machine designed to lay several continuous mag-stripes on to clear PVC overlay.

Magnetic Stripe Recommended Production Parameters for overlay

Condition	Tape layer
Temperature Range	135°C - 155°C
Type of Die	Metal Roller
Traversing Speed	3 – 20 metres per minute

Physical properties

Storage: Recommended storage temperature (4.5°C to 32°C) and 40% - 60% RH. Greencorp tapes should not be exposed to excessive moisture.

Magnetic properties

Greencorp products meet or exceed all performances and physical specifications required by International Standards, ISO/IEC 7811/2 (LoCo) 300 Oe, ISO/IEC 7811/8 (LoCo 650 Oe and 7811/6 (HiCo) 2750 Oe and 4000 Oe. Greencorp Transfer tapes can be made in coercivity ranges of 300 to 4000 Oe.

Notes on measurements.

The magnetic measurements are performed on an LDJ VSM or BH meter model 7000A (LDJ Electronics, Inc., Troy, Mich. USA). The instrument generates a cycling magnetising field of known strength and measures the magnetic flux emitted from a sample placed in this field. The measurements quoted above are done using a maximum field of 1000 Oersted.

Coercivity is the field intensity required to reduce the induction from saturation to zero.

Remanence is the induced flux remaining in the tape after the longitudinally applied field is reduced from 1000 Oersted to zero.

Squareness is the ratio of the residual flux density (Br) and the saturation flux density (Bm).

These properties are most important in Magnetic Stripe cards in determining the response of a tape to square wave signal encoding.