

Thermo Rewrite

The rewritable thermal recording material

ThermoRewrite provides solutions for

- Membership and Loyalty Cards
- ID Cards
- Access Control Cards
- Many Other Applications



MITSUBISHI PAPER MILLS LIMITED

Rewritable Media Group

2-10-14, Ryogoku, Sumida-ku, Tokyo 130-0026 Japan

TEL: +81-3-5600-1473 FAX: +81-3-5600-1419

<http://www.thermorewrite.com/eng/> (Material Info)

<http://www.thermorewrite.com/eng2/> (Application Examples)

E-mail: thermorewrite@mpm.co.jp



○ This catalogue is printed on Mitsubishi NEW V MATTE FMX 127.9g/m²



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The rewritable thermal recording material

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2013.09.

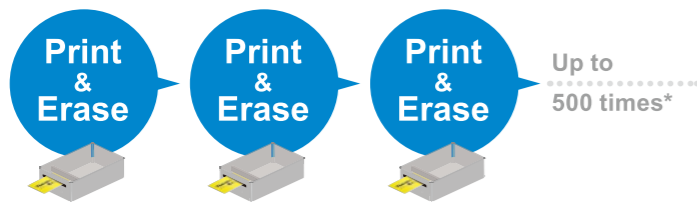
Rewritable and Reusable

- No Ribbon, No Ink, No Toner Required -



What is ThermoRewrite?

ThermoRewrite is a rewritable thermal recording material that can be printed and erased several hundred times by heat application. By using this technology, visual information can be renewed repeatedly. Therefore, the latest and most up-to-date information can be shown on the card.



Advantages

Information update :

Visual information can be repeatedly renewed using a rewritable printer.

Readability :

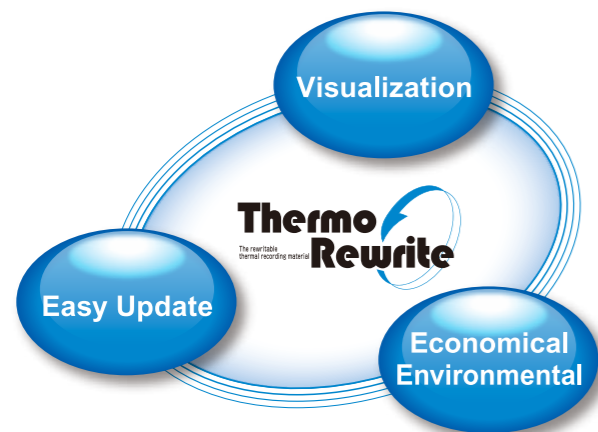
Clear images with high contrast and high resolution can be printed.

Wide range of products :

High-contrast blue and black image products are in the lineup.

Combination with IC chips and other techniques :

ThermoRewrite can be combined with other technologies such as contact and contactless IC chips, magnetic stripes, and holograms.



* The maximum number of rewrites may differ depending on actual usage circumstances.

Print & Erase



ThermoRewrite can be used for numerous applications.

- It is all up to you to come up with ideas to utilize it. -

ThermoRewrite is an excellent material for printing text, illustrations, photo images, barcodes, etc.; therefore, it can be used for numerous applications. Moreover, it can be combined with RFID as well. Since ThermoRewrite permits various degrees of freedom in card design, unique and impressive cards can be created using ThermoRewrite.

01 Membership and Loyalty Cards

Customers can monitor their reward points and current status without any complicated operations. One of the popular uses of rewritable cards is to indicate the balance of a prepaid card.



02 ID Cards

Visible information can be renewed easily. Validity date, photographic image, and other necessary information can be indicated on the card.



03 Access Control Cards

User information can be readily displayed on the card. This will help in eliminating any malpractices as well as any unfair treatment meted out to them.



04 Other Applications

Library Cards:

Convenient due date reminders.

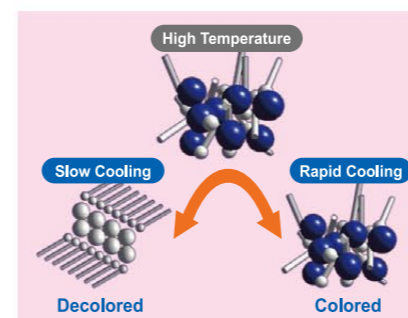
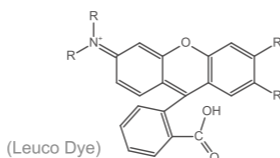
Clinic Cards, Patient Cards, etc.:

Appointment date can be printed clearly in large letters on the card surface.



Mechanism of ThermoRewrite

The underlying mechanism of ThermoRewrite is similar to that of traditional thermal paper, which is based on the reaction between a leuco dye and a developer. However, a specially designed developer is used for ThermoRewrite. Reversible coloring and reversible erasing are achieved by controlling the amount of thermal energy applied and the cooling speed.



01 Membership and Loyalty Cards

ThermoRewrite can add additional value to customer service and management

ThermoRewrite is widely used by many shops that are trying to provide superior services to their customers. Useful information for the customers, such as customer status, reward points, and event schedule, are indicated on the card.

Advantages for Customers

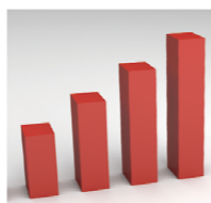
- Simple:** They can check their status by simply taking the card out of the wallet.
- Reminder:** They are less worried about the expiry date of reward points, as they are constantly reminded of it whenever they see the card.
- Attractive:** Everyone wants to earn more points.



Customer Satisfaction!!

Advantages for Shops

- Customer Retention:** Points are shown on the card, which triggers repeat business.
- Advertisement:** Updating advertising and promotional information on the card increases the willingness of customers to purchase.
- Customer Management:** Customer information can be analyzed effectively for gauging shopping trends and facilitating boost in sales.



Increase in Sales!!

Application Examples

Loyalty Cards for Shops

Situation A

- Approach for customer retention**
Reward points are updated with each purchase.
- Motivation for revisiting a shop is increased.**
The willingness of customers to purchase is also increased.

Situation B

- Approach for enhancing the willingness of customers to purchase**
Event schedule will be updated.
- Customer will be eager to revisit the shop.**

Other Rewritable Information:
Validity date, Customer status, Points required for getting a reward, etc.



Membership Cards at Beauty Salons

Situation A

- A convenient tool to attract repeat customers**
Not only reward points but also the previous treatment record is displayed on the card, and the customer can see it.
- On the basis of the previous record, customer can easily plan his/her next visit.**

Situation B

- An affordable way to increase average sales**
Reward points are updated with each visit.
- Customer will spend more to earn more points.**
Average sales per person are increased.

Other Rewritable Information:
Balance of prepaid cards, Name of the beautician who provided the service, Points required for getting a reward, Next appointment date



Other Examples

Shopping malls, Franchise stores, Pharmacies, Cosmetic shops, Massage salons, Fitness Clubs, Tennis clubs, Restaurants, Golf clubs, Gas stations, Coffee shops, Donut shops, Supermarkets, Clothing stores, etc.

02 ID Cards

ThermoRewrite is well suited for a variety of ID card applications, including temporary visitor badges and student ID cards.

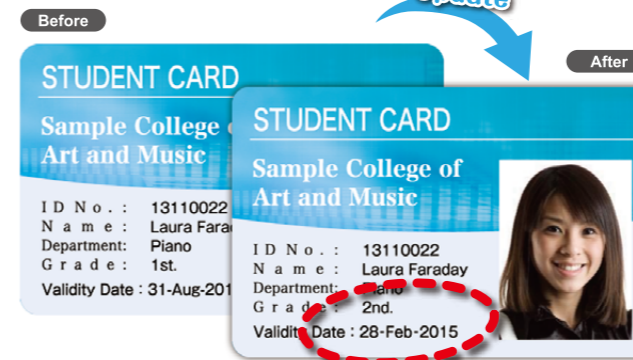
An ID card prevents unauthorized access and ultimately prevents crimes. Some ID cards require updated information that is printed on the card surface and is visible, such as a photograph, valid dates, and permission areas.

Advantages

- Easy Update:** ThermoRewrite allows easy renewal and updating of information printed on the card.
- Eco-friendly:** Rewritable printing can reduce the time, cost, and waste associated with reissuance.
- Reusable:** Since the card can be used many times, material cost is also reduced.

Application Examples

Student ID Cards



Earlier, the person in charge had to apply a new seal on the card at the time of renewal.

Validity date, etc. are printed on the card.

The workload of the person was reduced. This is because the information indicated on the ID card is renewed by a rewritable printer.

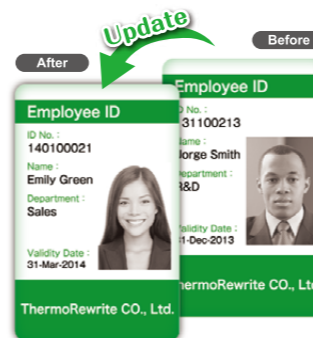
Rewritable Information: Expire Date, Field, etc.

Employee ID Cards (for Seasonal Employees)

A lot of new cards have to be reissued whenever new employees are hired. In this process, a lot of waste cards are generated.

Photograph, department name, validity date, access area, etc., are printed on the card.

The introduction of ThermoRewrite would help in reducing waste and cutting operational cost because the cards will be rewritable and reusable.



Rewritable Information:
Photo, Expire Date, Position, etc.

Visitor Badges

All visitors to a company may be required to wear a visitor's badge because of security reasons, especially for companies with a large number of visitors.

Name, validity date, access area, etc., are printed on the badge.

All badges can be collected when visitors leave and can be reused. As a result, waste is reduced.



Rewritable Information:
Visitor's Information, Validity Date, etc.

Other Examples

Many types of Employee ID cards (especially for temporary, short-term, or contract employees), Visitor Badges (e.g., for schools, hospitals, institutions, or companies), School ID Cards with validity date, Residence Certificate with validity date, etc.

03 Access Control Cards

ThermoRewrite helps in eliminating any malpractices

as well as any unfair treatment meted out to them, because user information is readily displayed on the card.

Application Examples

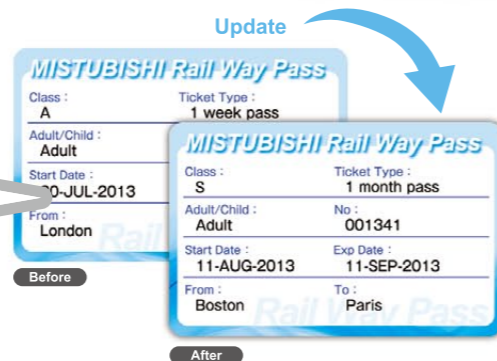
Commuter passes, Reserved-seat tickets, etc.

Rewritable Information: Validity Date, Route, etc.

Validity date, boarding section, zone #, etc., are printed on the card.

Information is readily displayed on the card. Since an ordinary IC card cannot provide such visible information, ThermoRewrite helps in preventing unauthorized use of the card.

All information required by a passenger is printed on the card. Therefore, many passengers are satisfied with ThermoRewrite.



Other Examples

Parking tickets, Gate control cards (especially for stadiums, resorts, museums, exhibitions, etc.), Reservation tickets (ferries, trains, buses, etc.), Card key at hotels, etc.

04 Other Major Applications

The applications of ThermoRewrite continue to expand.

Application Examples

Library cards

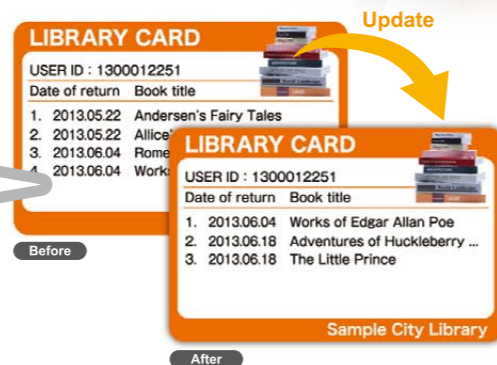
Rewritable Information: Date of Return, Book Title, etc.

User information and rental record can be consolidated into one card.

Both the book title and return date can be indicated on only one card.

The number of overdue books has reduced.

Library's administrative workload has reduced because the library staff receives fewer inquiries about book return dates.



Hospital and healthcare cards

Rewritable Information: Reservation Date/Time, Message, etc.

These cards are currently being used in many dental clinics, beauty clinics, and other hospitals/clinics because future appointments can be printed clearly and legibly on the card.

Appointment date and time as well as special notices can be updated during each visit.

Patients can easily remember the next appointment date.

The workload of clinic staff has reduced as a result of fewer patient appointment confirmations.

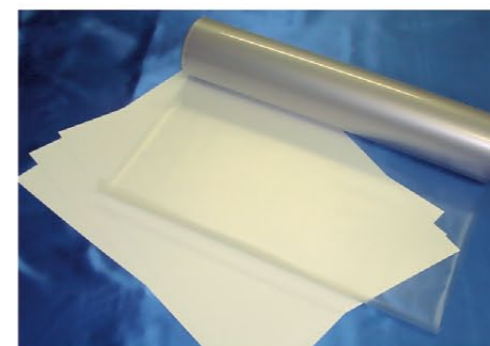


ThermoRewrite Products

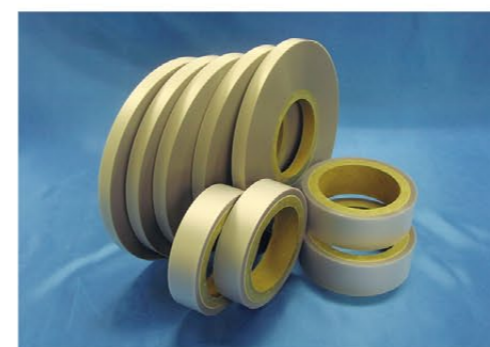
How to make card products with ThermoRewrite



TRF series

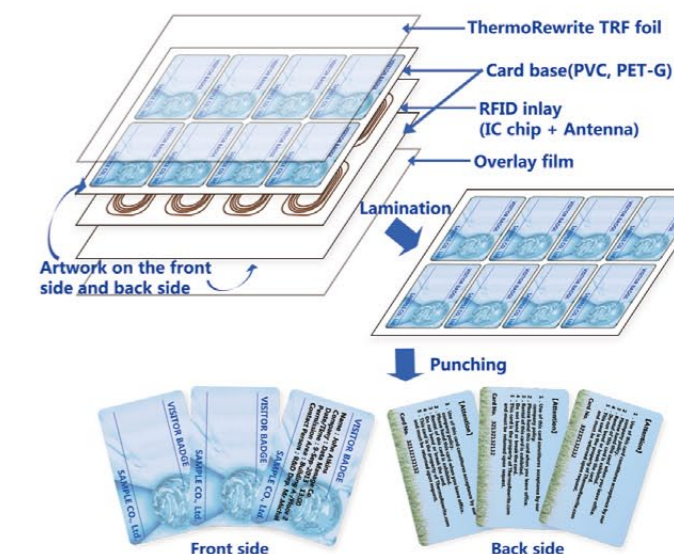


< Roll-Sheet >



< Tape >

The TRF series is a film-type product. The ThermoRewrite layer is coated on one side of a PET film, and glue is coated on the reverse side. Various types of rewritable cards such as thick plastic cards and IC cards can be created by combining the TRF series with base materials and inlays.



TRCG series



< Sheet >

The TRCG series is a sheet-type product for magnetic PET cards. This type of products can be subjected to UV offset printing on both sides and punching. The cover layer of the magnetic recording side is available in two colors: silver and white.

