

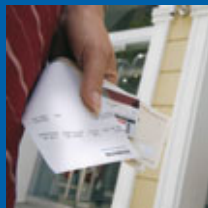
## Innovation for daily life | Banking





## Banking

- > *Technology and service*
- > *Account statements*
- > *Vouchers*
- > *Product advantages*
- > *Approvals*
- > *Grades*
- > *Contact*
- > *Sales offices*



## Self-service triumphs

"If customers use self-service machines for their routine money transactions, bank staff have more time for targeted advice." Such is the reasoning of the growing number of banks and building societies that are investing in self-service technology.

A bank branch without high-tech self-service machines is no longer conceivable. ATMs, statement printers and multifunction terminals – for transferring money or setting up standing orders, for example – are standard equipment. They enable customers to do their banking outside normal opening hours and to obtain cash day and night.

Just like the equipment used, vouchers and statements are also a high-tech product. What used to be the bank teller's receipt is now printed out in a fraction of a second – on high-quality, stable, highly durable thermal paper.



## Account statements – records that last

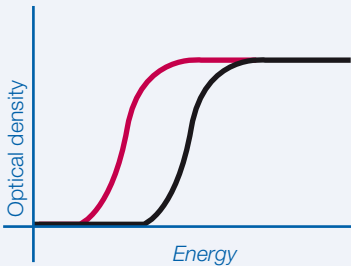
The first statement printers were loud and unreliable in equal measure. The printing on statements was sometimes barely decipherable. That was the past. Nowadays the machines are generally equipped with modern thermal printers that work quickly and quietly. The papers used are precisely adapted to the requirements of each printer, with the printing being correspondingly sharp as a result. *thermoscript* products have been subjected to a wide variety of different tests and are certified by the equipment manufacturers as being suitable for use in statement printers.

Account statements are one of the most important records of business transactions. There is a statutory duty to keep proof of money transfers for up to 12 years. Even in the private domain banking records are kept for several years to serve as proof.

The stability demands made on the papers used are therefore particularly stringent. Records have to be very durable. The printing must not fade even after many years. Mitsubishi HiTec Paper has developed its TF 8067, TF 8075 and TP 8065 *thermoscript* grades specially for such application.

*“Our papers have had their suitability for account statements intensively tested and have special approval for numerous printer systems. With grades such as TF 8067 and TF 8075, for example, we can offer custom solutions for this field of application.”*

*Dr Bernd Gerecht  
General Manager  
Marketing & Strategy  
Mitsubishi HiTec Paper  
Flensburg GmbH*



- TF 8075  
(fast printers)
- Standard product  
(slow printers)

*thermoscript* TF 8075:  
 Grades like TF 8075 ensure high-contrast statement printing even with low printing energy and high printing speed.

## ATMs

By entering their PIN and how much money they would like to get, customers can obtain cash from modern ATMs in a matter of seconds. And most machines print a receipt for the transaction just as quickly. This is particularly important when making a cash withdrawal from an ATM abroad.

## Receipts for your security

Freedom, independence and flexibility – these are the concepts used to advertise credit cards. And an increasing number of people are exploiting the advantages of cashless transactions at home and abroad. A credit card and signature are all that is needed to pay in restaurants, hotels or shops. Having said that, the advice is to keep credit card vouchers safe so as to have a record of debits at all times. Such vouchers are printed on thermal paper. Customers of Mitsubishi HiTec Paper especially favour its tried and tested P 5033 and F 5051 *thermoscript* grades, which offer, among other things, improved protection and compared to standard POS (receipt) papers.



## *thermoscript* product advantages

In banking much of business relations is now governed by highly advanced machines. Mitsubishi HiTec Paper has developed *thermoscript* products with a range of specific advantages in cooperation with the equipment manufacturers for the self-service sector of banks and building societies:

### > uniform blackening

Optimum print contrast is required for reproducing account movements or payment transactions on the vouchers produced by self-service machines. This can only be achieved by uniform blackening. All the *thermoscript* products made by Mitsubishi HiTec Paper are characterised by absolute uniformity of coating – the result of many years of research and development.



Uniform blackening, F5041



Competitor

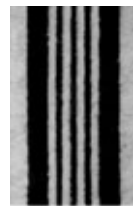
> smooth surface

Mitsubishi HiTec Paper makes the base papers at its own factory. This means that all the work processes (such as base paper production and application of the base coating, thermal coating and protective coating) can be coordinated inhouse. The result is a paper with a completely smooth, even surface. And this in turn ensures high resolution and a good-quality print image.

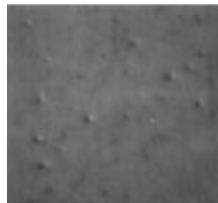
Body paper with even surface



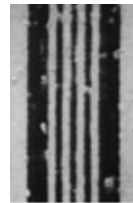
→ good thermal printout



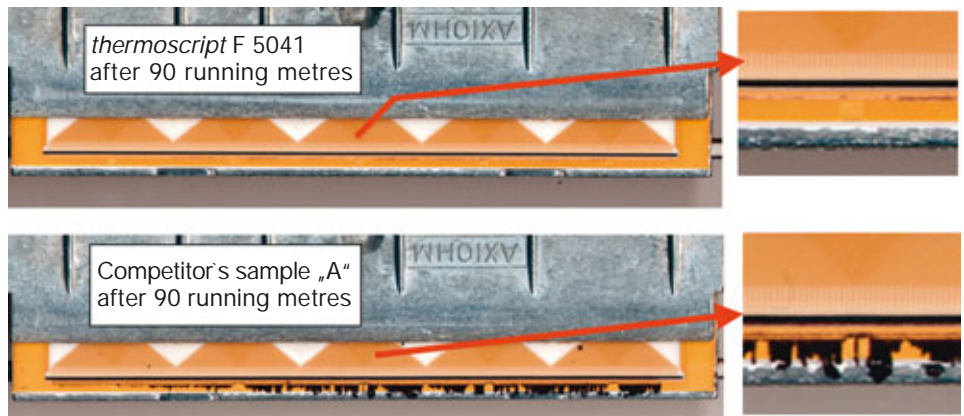
Body paper with uneven surface



→ poor thermal printout  
(missing dots = unprinted areas)



Print heads of an Axiom thermal printer with enlargement



> no fouling of print head

Fouling of the print head prevents the perfect energy transfer needed to produce an exact print image. In extreme cases such fouling can result in individual live elements blowing or even the whole print head failing.

Perfectly balanced formulations guarantee immaculate print head behaviour. *thermoscript* papers will not foul the print head.



> excellent ink receptivity

More and more thermal papers - for receipts for credit card transactions, for example - are being printed in colour on the back. *thermoscript* products guarantee good, even print results thanks to their smooth surface.

~~Na~~

~~K~~

~~Cl~~

> no abrasion

In critical climatic conditions excessive levels of Na, K and Cl ions can attack the glass-ceramic protective coating on print heads. The ion content of all *thermoscript* products is well below the critical level (Na < 500 ppm, K < 100 ppm, Cl < 300 ppm) as a matter of principle. Such low ion levels are a basic requirement if print heads are to have a long service life.

## OEM approval certificates

OEM stands for "Original Equipment Manufacturer" and designates enterprises that make thermal printers. Papers are thoroughly tested by these manufacturers before being approved. The following *thermoscript* products are specially certified by equipment manufacturers as being suitable for use in the banking sector.

OEM	Application	Grade	Printer type	Address
<b>Hengstler</b> (formerly BDT)	Account statements	TF 8067 TF 8075	TPM 200 TPM 200 HR	Hengstler GmbH Uhlandstr. 49 78554 Aldingen Germany
<b>NCR</b>	Account statements	TF 8075		NCR Schweiz Systemedia Hertistrasse 25 8304 Wallisellen Switzerland
<b>Wincor Nixdorf</b>	Account statements	TF 8067 TF 8075	TP01 (Proprint 1000/2000)	Wincor Nixdorf International GmbH Heinz-Nixdorf-Ring 1 33106 Paderborn Germany
<b>Swecoin</b>	Account statements	TF 7067 TF 8075	TTP 8 x 00	Swecoin AB Bergkällavägen 32 192 79 Solleutuna Sweden



Grades like TF 8075 or TF 8067 satisfy even strict food safety standards and have special ISEGA certification.

## Handling thermal papers

Thermal papers represent no risk whatsoever to the environment in terms of use, storage or disposal.

They can be disposed of in the same way as standard papers (incineration, waste paper). *thermoscript* papers fully comply with the EC Directive 94/62 EC Toxicity Form (heavy metal content) and there are no food safety concerns of any kind.

- > All the basic raw materials used to produce thermal papers are registered in accordance with EINECS (European Inventory of Existing Commercial Substances) or ELINCS (European List of Notified Chemical Substances).
- > Mitsubishi HiTec Paper does not use any pulp bleached with elemental chlorine in the production of thermal papers.
- > NOTOX (Safety & Environmental Research B.V.) in the Netherlands tested thermal papers made by Mitsubishi HiTec Paper for, among other things, skin and eye tolerance. There were no complaints.
- > Mitsubishi HiTec Paper is a member of ETPA (European Thermal Paper Association). Members of ETPA may only use toxicologically harmless substances in production, with a voluntary undertaking being given to the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.



## Products for high standards

Mitsubishi HiTec Paper supplies the widest range of thermal papers worldwide. The following products are particularly recommended for use in the banking sector.

Grade	Description	Weight
<b>F 5051</b>	Fax and printer grade with high sensitivity. Normal resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc.	56 g/m <sup>2</sup>
<b>P 5033</b>	Printer grade with standard sensitivity. Enhanced resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc. Excellent printability of thermal coating using UV offset and flexographic printing.	56 g/m <sup>2</sup>
<b>TP 8051</b>	Ticket grade with standard sensitivity. Good resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc. Very good scratch protection and topcoat printability.	83 g/m <sup>2</sup>
<b>TP 8065</b>	Ticket grade with very high sensitivity. Very good resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc. Very good scratch protection and topcoat printability.	84 g/m <sup>2</sup>
<b>TF 8075</b>	Ticket grade with maximum sensitivity. Very good resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc. Very good scratch protection and topcoat printability. Very high smoothness.	84 g/m <sup>2</sup>
<b>TF 8067</b>	Ticket grade with high sensitivity. Very good resistance to environmental influences, e.g. heat, moisture, light, lanolin, alcohol, plasticisers, water, etc. Very good scratch protection and topcoat printability. Very high smoothness.	83 g/m <sup>2</sup>

*Our versatile spectrum of thermoscript standard products is supplemented with various specialities. We use the modular design principle to develop individual solutions for each area of application.*

*You will find detailed information on characteristic and physical properties, as well as climatic and chemical stability, in our technical datasheets. Our sales department will be happy to send you them on request.*

## Talk to us

Our customers make demands on us. They don't want standard products, but individual solutions.

The R&D department, Sales and Marketing, engineers, and paper makers work together at Mitsubishi HiTec Paper Flensburg to develop the right paper for each application.

Mitsubishi HiTec Paper Flensburg stands for worldwide service and top quality. Long-standing business relationships with customers all over the world show that Mitsubishi HiTec Paper Flensburg is on the right track.

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#### EUROPE

Albania, Bosnia, Croatia, Macedonia,

Slovenia, Yugoslavia

MPB HiTec Paper ME

Baltic States, Russia

Oy MPB HiTec Paper Ab

Belgium, France, Switzerland

Dispatec GmbH

Bulgaria

ICOMM

Germany, Netherlands, Denmark

media - X - pert

Finland

Oy MPB HiTec Paper Ab

France

Mitsubishi France S.A.

Greece

StoraEnso Hellas A.E.

United Kingdom

Mitsubishi Corporation (UK)

Ireland

Réalt Paper Limited

Italy

Rocart S.a.s. di Rossi Franco & Co.

Austria

Rocart S.a.s. di Rossi Franco & Co.

Poland

Papier Spektrum Sp.z o.o.

Portugal, Spain

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Rumania, Ukraine

ICOMM

Sweden

Oy MPB HiTec Paper Ab

Czech Republic, Slovakia

Pavco s.r.o.

Turkey

Melka International

Hungary

Stora Enso Hungary Kft.

#### MIDDLE EAST AND AFRICA

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Mitsubishi Corporation Cairo Liaison Office

Algeria, Morocco, Tunisia

Dispatec GmbH

Israel

Moshe Paper International Incorp.

Saudi Arabia

Mitsubishi Corporation

South Africa

Mitsubishi Corporation

U.A.E.

Mitsubishi Corporation

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Mitsubishi Corporation do Brasil S.A.

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Mitsubishi Chile Ltda.

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Peru

Mitsubishi Peru S.A.

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Mitsubishi Venezolana C.A.

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Mitsubishi Corporation - Beijing Office

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Mitsubishi Corporation

Japan

Mitsubishi Paper Mills

Malaysia, Singapore, Vietnam, Philippines

Mitsubishi Corporation Singapore Branch

New Zealand

Mitsubishi New Zealand Limited

South Korea

Hansa Industrial Corporation

Mitsubishi Corporation (Korea) Limited

Taiwan

Mitsubishi Corporation (Taiwan) Limited

Thailand

Thai Mitsubishi Corporation

**thermoscript**

... all over the world.

Being an internationally active company, Mitsubishi HiTec Paper Flensburg GmbH is present all over the world.

More details about our agencies are available at:

[www.mitsubishi-paper.com](http://www.mitsubishi-paper.com)



*thermoscript*



Thermal papers for

- > Fax/POS
- > Label
- > Entertainment
- > Transport
- > Gaming
- > Banking
- > Medical



## Imprint

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