



# Passion for coated speciality papers

Mitsubishi HiTec Paper





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Mitsubishi HiTec Paper



micCoater

MITSUBISHI  
HITEC PAPER  
EUROPE

HiTec Paper.

# Passion for coated speciality papers

Mitsubishi HiTec Paper



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  - *jetscript*® Inkjet Paper
  - *phoenix*® Carbonless Paper\*
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\* = manufactured by Oji Paper Thailand





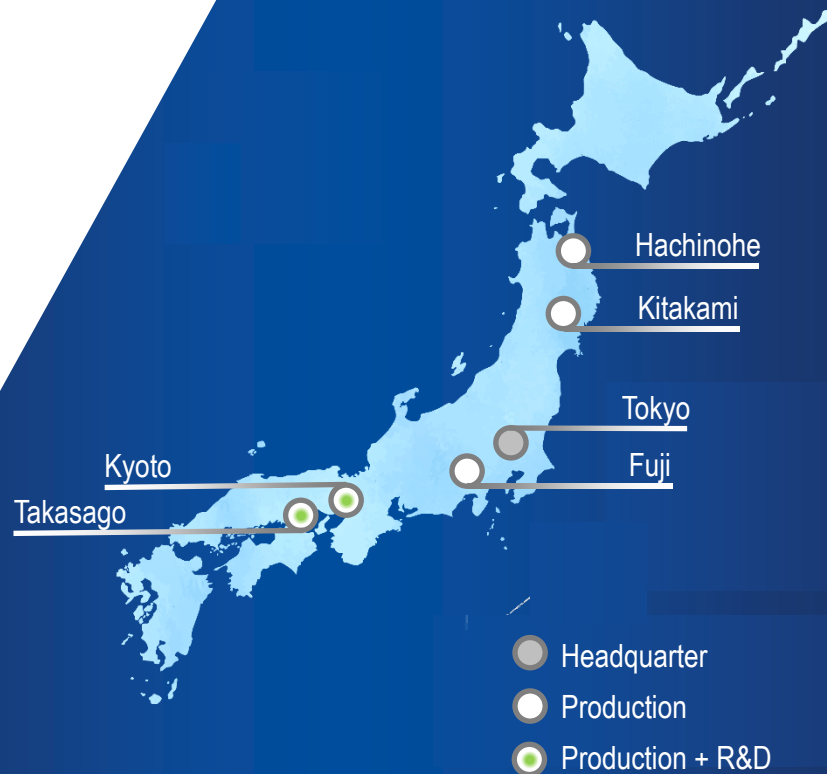
# Family.

## Our parent company



### MITSUBISHI PAPER MILLS LTD.

- > Head Office: Tokyo | Japan
- > Locations in Japan: 5 production sites  
2 research centres
- > Further locations: Germany, China
- > Net Sales: 175.942 Mio. YEN (04/24 – 03/25)
- > Products: Functional Materials  
Sustainable Fiber Materials
- > Website: [www.mpm.co.jp](http://www.mpm.co.jp)





# High-Performance.

## Our location in Bielefeld

Paper has been produced in Bielefeld-Hillegossen in East Westphalia, right next to the Teutoburg Forest, since 1799. At the end of the 1940s, the future potential of coating technology was recognised. Investments were made in large and efficient plants.

This was followed by the construction of a multi-stage mechanical-chemical-biological wastewater treatment plant and an energy-efficient combined cycle power plant on the site.

These decisions characterise the mill today. Responsibility and high performance are our standard. Now and in the future.





# Competence.

## Our criteria for success

Founded 1799, we have a long tradition of papermaking in Bielefeld-Hillegossen. Today, the mill is an efficient, high-tech facility.

### FACTS

- > Location: Bielefeld / Germany
- > Products: *thermoscript*® Thermal Paper  
*jetscript*® Inkjet Paper  
*phoenix*® Carbonless Paper\*
- > Capacity: 145,000 t/year
- > Workforce: approx. 450
- > Turnover: approx. EUR 200 m
- > Export ratio: approx. 80 %
- > 2 Paper Machines
- > 4 Coating Machines (Rod, Blade and Curtain Coater)
- > Converting lines
- > Multistage mechanical, chemical and biological water purification
- > Gas & steam turbine power plant (combined heat and power generation)

\* = manufactured by Oji Paper Thailand











Pulp preparation

PM 3

PM 1

Converting

RZL

CM 3

Dispatch

HRL

Engineering

CM 1

CM 2

CM 21

Administration

Power plant

HRL = High-bay storage  
RZL = Interim storage



## Competence.

### Our criteria for success

- > Huge experience and competence in paper making
- > State-of-the-art coating technologies and formulations
- > Different coating technologies for diverse functional coatings
- > Curtain Coater Technology  
(for particularly precise, consistent and highly effective coatings)
- > Multiple and double-sided coatings
- > Own base paper production
- > German-Japanese Research & Development
- > Flexibility of a medium-sized enterprise
- > Wide range of products
- > Excellent Technical Service
- > Worldwide Sales
- > Made in Germany





# Engagement.

## Our understanding

The know-how and commitment of our valued employees form the essential foundation of our success.

- > Certified occupational safety and health management system
- > Compatibility of family and work
- > Continuous education and training / Online training programme
- > Knowledge exchange within the international Mitsubishi Paper Mills Group
- > Average seniority of our employees: 16 years

We promote young talents.

- > Apprenticeships (7 professions)
- > Trainee programmes
- > Internships
- > Study courses



[Apprenticeship  
videos](#)





# Responsibility.

## Our self-perception

The responsible use of resources and sustainable production are particularly important to us. We actually do something!

- > Usage of renewable raw materials
- > Sustainable energy production in our modern gas power plant (combined heat & power)
- > Increase in recycling rates and reduction of levels of waste
- > Shifting transport from road-based to rail and sea-based
- > Continuous reduction of water and energy consumption (per unit produced)
- > Continuous investment in wastewater purification

## CERTIFICATES

- > FSC® Chain-of-Custody
- > PEFC Chain-of-Custody
- > DIN EN ISO 9001
- > DIN EN ISO 14001
- > DIN EN ISO 50001
- > INREKA | DIN EN 15593
- > DIN ISO 45001



# Responsibility.

## Our self-perception

We take social responsibility seriously.

Conforming and following the rules go without saying.

Social responsibility is an important element of our corporate culture.

- > Promoting and developing young people in the region of our location
- > Execution of the Chambers of Commerce's "Charter for Corporate Citizenship Company"
- > Code of Conduct of the Mitsubishi Paper Mills Group
- > Voluntary compliance management system
- > Active part in environmental initiatives and associations, e.g.
  - B.A.U.M.
  - ChePap Rhein-Ruhr
  - DIE PAPIERINDUSTRIE
  - Modellfabrik Papier
  - Ökoprotit® Klub OWL
  - Two Sides

WE ARE  
ACTIVE!

B.A.U.M.  
ChePap Rhein-Ruhr  
Modellfabrik Papier  
Ökoprotit Klub OWL  
Two Sides



## Agile.

### Our innovation drivers

Highly qualified experts from the fields of paper technology, chemistry, engineering and CTA act as innovation drivers. Modern project management and basic research lead to strong innovations.

In our laboratories we optimize products, make processes more efficient and develop the speciality papers of the future. It is particularly important to us to minimize the impact of our products and processes on the environment.

- > State-of-the-art equipment, including:
  - Technical centre with curtain coating system
  - Electron and optical microscopy
  - Image analysis
  - Spectroscopy
  - Thermal analysis
  - Rheology
- > 70% of products are less than 5 years old
- > 10 patent applications annually
- > 200 active patents





## Worldwide.

### Our experts

We deliver our speciality papers all over the world.  
We accompany our customers from the first conversation to the final application.

- > Global **Sales Team**
- > Reliable **Customer Service**
- > Professional **Technical Service**

Find your sales contact [here!](#)



## Coated.

### Our HiTec Speciality Papers

*» Our products are truly “high-tech” papers.  
They combine the know-how of experienced papermakers  
with excellent coating technology  
and professional converting. «*

*thermoscript*  
thermal paper

*jetscript*  
inkjet paper

*phoenix*<sup>\*</sup>  
CARBONLESS PAPER

\* = manufactured by Oji Paper Thailand





The logo for thermoscript, featuring the word "thermoscript" in a lowercase, sans-serif font. A small red graphic element, resembling a stylized 'm' or a folded piece of paper, is positioned above the 'm'.**Thermal Paper**

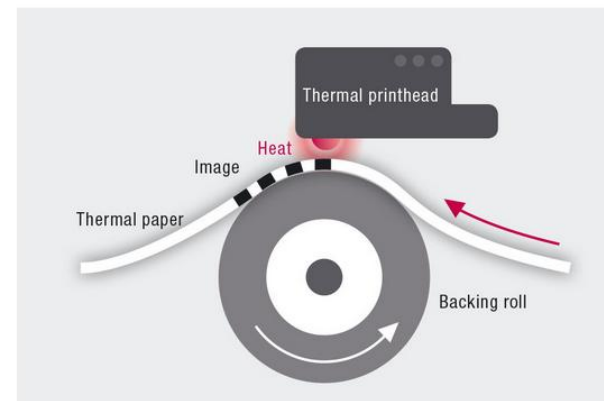
## DIRECT THERMAL PRINTING

Direct thermal printing is a contactless printing process using heat transfer:

- > Large number of small heating elements over the entire width of the thermal print head
- > Heating elements transfer heat directly to the thermal paper
- > The functional thermal layer reacts to heat with a pigmentation, creating a printed image

In addition to text, graphics and all types of barcodes can be printed.  
Simple, reliable and fast.

### Thermal imaging process





The logo for thermoscript, featuring the word "thermoscript" in a lowercase, sans-serif font. A small red square is positioned above the letter 'm'.

Thermal Paper

## DIRECT THERMAL PRINTING

Advantages of thermal printing:

- > Low noise & reliable
- > Fast & easy to use
- > Low operating costs  
(low-maintenance and energy saving)
- > No other consumables
- > Compact printing unit  
(portable handheld devices)
- > Can be used under extreme climatic conditions






**Thermal Paper**

With *thermoscript*® we offer individual and innovative thermal paper solutions. For many customer requests and applications. Such as POS receipts, labels, ECG printouts, tickets for parking, transportation, admission or gaming etc.

**AT A GLANCE**

- > 42 – 208 gsm
- > Several sensitivity levels
- > Archivable for up to 25 years
- > Very good barcode readability
- > Phenol-free thermal papers
- > Linerless label papers
- > ISEGA certified for food contact
- > FSC or PEFC certified available

**APPLICATIONS**

POS



Label



Tickets



**Brand-new:**  
thermoscript 34  
and 37 grades!

- UV-Offset printable
- phenol-free
- stable



## INKJET PRINTING

Inkjet printing is a non-contact printing process in which tiny drops of ink are shot or deflected from the print head in a targeted manner.

The print quality crucially depends on the paper used.

The best results are achieved with our specially coated *jetscript*® inkjet papers.

Because the ink is fixed in the ink-receiving layer and does not penetrate the cellulose fibres. This leads to particularly brilliant, sharp printed images.

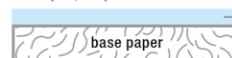


The special **ink receiving layer** leads to:

- > excellent print results with highest print densities
- > extraordinary large colour gamut
- > fast drying properties
- > excellent compatibility with dye and pigment inks

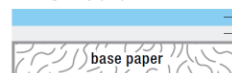
### Construction of jetscript papers

#### matt (ML, MH)



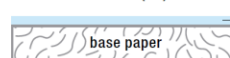
Ink receiving layer  
(matt)

#### semi-glossy (GS)



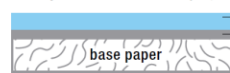
Ink receiving layer  
(premium semi-glossy)  
Pre-coat  
(premium semi-glossy)

#### double-sided matt (DL)



Ink receiving layer  
Ink receiving layer

#### microporous resin coated (SC, SG, SL, SM)



Ink receiving layer  
PE layer  
PE layer



*jetscript***Inkjet Paper**

With *jetscript* we offer a wide range of high-quality coated inkjet papers.

- > Approx. 40 grades
- > For water-based ink types and printing technologies
- > For many large and small format applications, such as
  - Photo
  - Large Format
  - Proofing
  - High-Speed Inkjet Printing
  - Labels

#### APPLICATIONS



Photo



Large Format



Proofing



High-Speed



Label







## AT A GLANCE

- > 70 – 290 gsm
- > Single-side and double-side coated
- > Different surfaces:
  - matt
  - semi-matt
  - satin
  - semi-glossy
  - glossy
  - lustre
- > All popular jumbo roll widths
- > Proofing papers FOGRA certified
- > ISEGA certified for food contact
- > FSC or PEFC certified available



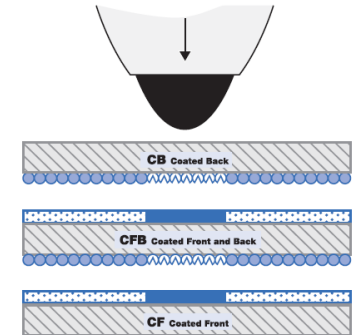


## CARBONLESS PAPER TECHNOLOGY

- > The copy is created as a result of writing pressure
- > Microcapsules containing colourless colour formers, which are in the coating on the reverse of the top sheet (B coating), are burst when pressure is applied
- > This leads to a colour forming reaction with a second bottom sheet, which is coated on the top surface (F-coating)
- > To produce a form therefore, at least two sheet types are required. For form sets with more than two sheets another sheet grade (CFB) is required as a middle sheet.

The image shows two examples of carbonless paper forms. On the left is a yellow form from 'HOTEL INTER-CONTINENTAL LONDON' for 'ROOM SERVICE BREAKFAST ORDER FORM'. It includes a circular logo and a table for ordering breakfast. On the right is a pink form from 'Gates Tyre SUPERSTORE' for 'SERVICE RECORD / BREAKDOWN ASSISTANCE'. It contains various fields for customer information, vehicle details, and a table for recording tyre services.

### Functioning Principle of Carbonless Papers



Writing pressure causes the microcapsules to burst and they release dissolved colour formers onto the receiving layer of the sheet below, producing a clear copy.

\* = manufactured by Oji Paper Thailand



**phoenix®****Carbonless Paper\***

We are very pleased to be able to offer high-quality *phoenix®* carbonless papers produced by Oji Paper (Thailand) with immediate effect.

*Phoenix* stands for a premium-quality range of carbonless papers:

- > Excellent printability
- > High print density
- > Clear, stable print image (over a long period of time)
- > Very good copyability
- > Production of high-quality copies on multiple plies of paper
- > Excellent runnability and processability
- > Excellent stiffness and dimensional stability
- > Protection of smudge occurrence from normal handling and usage

*Phoenix* papers are well accepted and highly trusted by customers in more than 50 countries in Europe, America, Australia, Asia and Africa.

<http://www.ojipaper.co.th/products/carbonless-paper.php>



\* = manufactured by Oji Paper Thailand



# Impressive.

## Our criteria for success

### MITSUBISHI HITEC PAPER AT THE CORE

- > Many years of experience and expertise in paper making
- > State-of-the-art coating technology & high-tech coatings
- > German-Japanese research & development
- > Extensive product range
- > Excellent Technical Service
- > Global Sales Network
- > High innovative power
- > Made in Germany





***» Quality paper is the foundation.  
Incomparable added value is created  
by excellent coating.***

***This is our passion:  
First class HiTec Paper. «***

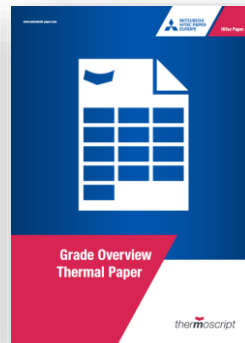




**Thank you.**

Brochures and much more information can be found on our website:

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



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