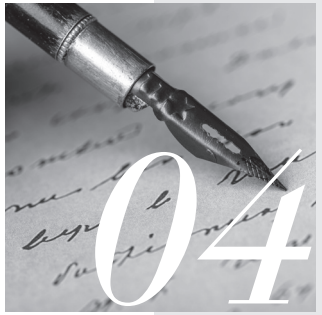

FORMIKA
FLEXO PRINTING
SUSTAINABILITY
REPORT
2021/2022
Committed to making everyday life easier rather than just producing packaging.

**WE SHARE**
OUR EXPERIENCES AT:

http://www.formika.com.pl

https://www.linkedin.com/company/formika-sp-z-o-o-/

# contents









**Joanna i Piotr Dębiccy**
Formika's Management Board

*Environmental protection is an integral part of our day-to-day operations at Formika. We believe that by going green, we can substantially contribute to preserving the environment for future generations. As our customers have become increasingly conscious, the percentage of sustainable packaging in our portfolio has been steadily rising, driving the company's performance.*

As a manufacturer of over **5 billion packaging units** per year available across **4 continents** and in more than **40 countries**, we have a significant impact on the circular economy.

Therefore, all our efforts are aligned with the desire to take best care of the environment. We want the living conditions of our children and grandchildren to remain unchanged.

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## COMPANY HISTORY

Formika is a flexographic printing company specialised in the manufacture of packaging for food, cosmetics, pharma and chemical industry.

## 1978


**COMPANY FORMATION**
Formika (Latin for 'ant') is founded and starts producing plastic automotive products amid tough conditions of an economy that does not encourage private initiatives.

The founder, originator and creator of the company is Jerzy Przywuski, an economist with passion and ideas.

## 1991

**CHANGE OF COMPANY PROFILE AND ENTRY ON PACKAGING AND FOOD MARKETS.**

Formika is Poland's first company to launch the production of plastic packaging for the food industry. These are mainly containers for yoghurts, cheeses, creams, etc. produced using the pressure and injection method and then overprinted using dry offset technology.

In a very short time, the company earns many clients' trust.

## 1996

**ONLY 5 YEARS AFTER**
the launch of its plastic packaging production, Formika becomes the market leader in Poland and starts attracting foreign investors.

## 1997

**THE SALE OF ALL MACHINES**
and know-how to Greiner, an Austrian corporation, is finalised as Greiner opens a new production plant in Teresin near Warsaw. For a year, the plant operates as Greiner – Formika. Jerzy Przywuski and the fellow member Wojciech Zasadziński are involved all the way in the launch of the plant, hiring and employee training.


## 1998

**FORMIKA AND GREINER PART WAYS** (Wojciech Zasadziński stays in Greiner where he is still the President of the Management Board and Jerzy Przywuski continues to develop Formika).

As a wholly domestically owned company, Formika starts off a new business activity of aluminium lid production for the food industry using UV flexo technology. Until this time, that technology has not been implemented in Poland and only traditional solvent-based flexo has been used, which delivers much lower printing quality than UV-based technology.

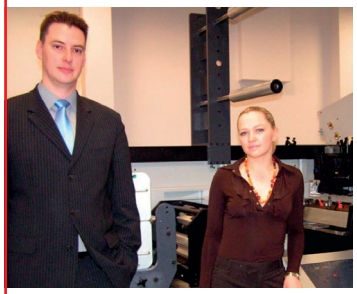
Formika is the first company in this part of Europe to have a UV flexo press.

## 2003

**UNDER JERZY PRZYWUSKI'S MANAGEMENT, FORMIKA THRIVES** and the machinery resources need to be expanded by adding a new UV flexo press.

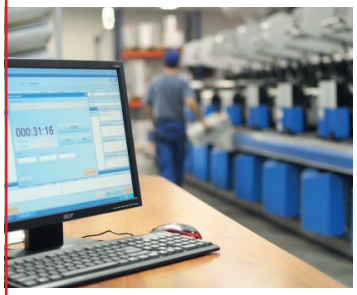
## 2006

**SUDDEN AND EARLY DEATH**
of the company's founder Jerzy Przywuski. Following his passing away, the company remains a wholly family-owned business and is now managed by Przywuski's daughter and her husband.



## 2010

**THE COMPANY GOES THROUGH A NUMBER OF IT MODERNISATION WORKS**
(e.g. implementation of a fully integrated ERP system).



In addition, new presses are purchased.

## 2013

**RAPID AND DYNAMIC COMPANY DEVELOPMENT**
makes the current location in Raszyn no longer enough to accommodate the business.

Therefore, Formika buys land in Brwinów near Warsaw and launches the construction of a new plant.

## 2014

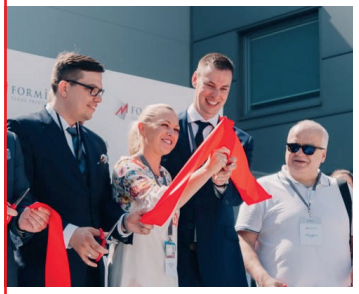
**AFTER 9 MONTHS OF CONSTRUCTION,**
the new production plant in Brwinów is opened. It is one of Europe's most advanced factories dedicated to manufacturing packaging for the food, pharmaceutical and cosmetic industries. The manufacturing space of nearly 6,000 sqm houses Central and Eastern Europe's only class D clean room (ISO 8) where aluminium medicine packaging is manufactured.

The new plant has the production capacity of about 100,000,000 MB. However, as early as during investment planning, it was designed for easy expansion.

## 2019

**ANOTHER PLANT IS OPENED**
and the production and office space is expanded by 100% to 11,502 sqm.

On 13 June 2019, Formika celebrates its 40th grand anniversary and new plant opening. The day's highlight is a tour of the factory, including the brand new halls and machines for cosmetic tube manufacturing.



## 2020

**THE ESTABLISHMENT OF A SUSTAINABILITY FUNCTION WITHIN R&D AND EMBARKING ON RESEARCH INTO NEW PACKAGING MATERIALS**

are coupled with the launch of products that support the circular economy.

If you are interested, do not hesitate to contact us.

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## ACTIONS
## UNDER OUR SUSTAINABILITY PLAN

At Formika, we care about
the environment and we want
the living conditions of our children
and grandchildren to remain the same.

# **INNOVATIVE**
# MANUFACTURING TECHNOLOGIES AT FORMIKA

## **HEAT RECOVERY** SYSTEM

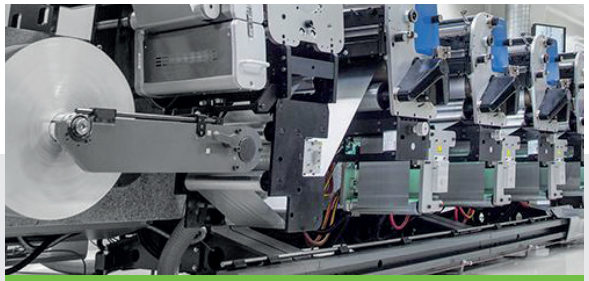
A heat recovery system is installed at the facilities. The heat so recovered is used for space heating. Heat is recovered from two sources: the ventilation system and exhaust air from presses.

The heat recovery system reduces the demand for gas for heating purposes. An advanced boiler with two condensing boilers having an efficiency rating of 98% is used to heat the system.

## **WASTE SORTING** AND REDUCTION

Hazardous industrial waste for disposal is significantly reduced by a washout (solvent for photopolymer plate production) distillation system installed at the facilities. Formika makes printing plates using a computer-to-plate (CTP) system that minimises (chemical) waste incidental to photopolymer plate production by reducing intermediate production steps.

Formika also sorts post-production waste (scrap aluminium, paper and cardboard) and sells a large proportion as secondary waste materials.



## **PERFORMANCE** IMPROVEMENT

Formika is one of Poland's first companies to have had, since mid-2016, a press equipped with a nitrogen atmosphere printing technology that delivers faster printing speed (for improved efficiency) and reduces migration with the same installed capacity of UV lamps.

In addition, the printing works uses a dispenser (mixer) that reduces ink residue. Formika's electric power supply system utilises capacitors for reactive power compensation.

## AS A COMPANY, WE AIM TO PROMOTE RESPONSIBLE ATTITUDES THROUGH ACTIONS SUCH AS:

- Ensuring compliance with both the national and the EU environmental legislation and reducing our ecological footprint
- Ensuring compliance with the tax laws effective in Poland
- Forging long-term relationships with our Suppliers and Customers based on business integrity
- Manufacturing fully recyclable aluminium and monofilm packaging
- Providing rational waste management, including solid waste processing and liquid waste distillation
- Promoting environmentally friendly lifestyles through environmental education and providing free employee transport
- Reducing water and power consumption by having PIR sensors installed throughout the plant premises
- Ensuring alignment with Economy 4.0 in respect of process robotics and automation to enable production with significantly lower resource consumption per packaging unit.

## **PRO**FESSIONALISM

01 **Professionalism of our staff** is an asset of our organisation.

02 Job requirements for each position are defined so as to ensure that **employees are aware of their rights and obligations.**

03 **Our employees' competencies** are continuously improved to keep up with technical and technology developments.

## **CORPORATE** SOCIAL **RESPONSIBILITY**

- **we have an impact on the unemployment rate** in our region
- we have a **healthcare plan** with membership cards for medical services
- **we promote healthy lifestyles** to our employees, with membership cards for sports services (e.g. gym, swimming pool, squash, etc.)
- **we actively give back to the community**
- **we provide assistance to children** and their families in hardship

# **‘FORMIKA DZIECIOM’** FOUNDATION FOR CHILDREN

On 24 April 2014, we signed a deed to establish a foundation for children under the name ‘Fundacja Formika Dzieciom’. The primary object of the Foundation is to provide assistance to children and youth in distress and financial hardship and to equalise opportunities and to provide support to large families, children’s homes, single mothers’ shelters and schools. Extracurricular activities for children and youth, including language courses, sports activities, art and music classes, were fully or partially funded during the school year 2020/2021 under our equal opportunity plan.

**OUR ACHIEVEMENTS TO DATE:**

## 22 projects

**for renovations and upgrades of children’s homes, multifamily residentials and therapeutic centres for children.**

## 638 children

**of the most disadvantaged families in Poland’s south-easternmost region of the Bieszczady Mountains have had their school meals funded by us.**

## 738 children

**have participated in summer and winter holiday trips, school trips, camps and day camps paid for by the Foundation.**

## 155 children

**and youth of disadvantaged families received school starter packs of school stationery supplies, backpacks or textbooks.**

# **DETAILED ACTIONS** UNDER OUR SUSTAINABILITY PLAN

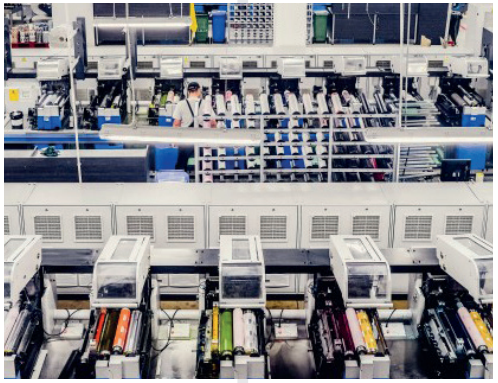

As part of our sustainability and planet-saving efforts, we decided to eliminate bottled drinking water. We used to buy almost 4,000 plastic bottles a month, which is little less than 50,000 a year!

To continue to provide access to water for all, we purchased reusable water bottles for each and every employee to take water from water coolers. Every such water bottle is customised and bears the company logo.

Additionally, a water cooler location map was created for easy locating. Currently, thecompany has 10 water coolers: 2 in the office areas and 8 in the production area.

# PRODUCTION

- **Optimised ink series** by bringing them down from 6 to 3
- Photopolymer plate replacement for **lower energy losses** owing to fast processing capabilities and time reduction by about 40%
- Purchase of a new laser for the CTP prep area to deliver **energy savings** with a faster plate exposure process; more plates can be made within the same time so less time and energy are consumed to produce the same quantities of plates
- **Unified press and anilox cleaning chemicals:** one single cleaning agent is used for photopolymer plates, aniloxes or printing presses
- **Press heat recuperation** operational since 2014. The heat dissipated as hot air from press UV lamps is transferred to a cross-flow plate heat exchanger, which virtually eliminates gas consumption during transitional seasons
- **Automated aluminium recycling system**. Aluminium waste (also known as 'die-cutting grids') produced in the die-cutting process is sucked into a special processing system where the film is shredded, compressed and then transported to a dedicated container from which it is collected by recycling service providers
- Rim embossing with good peel properties, without compromising on smooth aluminium surface finish
- Printing using an inert nitrogen technology for the lowest migration ever
- Development of a kaizen culture with its elements of visualisation, SMED and 5S



REDUCTION OF

**50 000**

PLASTIC WATER BOTTLES

REDUCTION OF

**120**

FORKLIFT GAS BOTTLES

REDUCTION OF

**50%**

OF REQUIRED SHIPPING SPACE

REDUCTION OF

**up to 33 my**

OF ALUMINIUM FILM THICKNESS

## LOGISTICS

- whenever possible, we aggregate calls or shipments to a particular destination to achieve **reduced $CO_2$ emissions**
- we have implemented export packing cases which can be stacked in a container to deliver **50% shipping space saving** in sea transport (e.g. to Australia)

## PLANNING

A tailor-made IT system has been implemented with an advanced planning module whose functions enable even better production process optimisation and, consequently, **reduced raw material losses** throughout the production chain.

## WAREHOUSING

We transitioned **from a gas-powered exterior forklift to an electric** one in 2020, thus making an annual saving of 2,400 litres of gas since we used to use ten 20-litre gas bottles a month to power the forklift.

## NPI

- a project to **reduce aluminium film thickness** from 37–38 my to 29–33 my
- we **support local business** by procuring test cutting dies directly from a local provider

## QUALITY CONTROL ASSURANCE

proven packaging safety supported by compliance with the legal requirements, risk identification and continuous quality control of raw materials, semi-finished products and finished products

risk analysis for every process

monitored processes and environmental conditions (defined control points)

improvement and corrective actions; efficiency assessment of actions

quality training for the staff

**QUALITY ASSURANCE AT EVERY STEP OF THE CONTROL PROCESS, INCLUDING:**

- incoming raw material inspection
- quality control in the process
- finished product final inspection and release by Quality Assurance
- internal Quality Standard
- quality KPI monitoring and review

## HR

- **We focus on employee development**: skills, awareness, expertise
- We have **special programmes** for new hires with an in-house trainer system
- We hold **Technology Days**, e.g. Technology Wednesdays dedicated to current developments in printing
- We offer **factory tours** for children and youth with social distancing measures in place

## OFFICES

**Office waste sorting** initiative: waste sorting locations are labelled with special stickers and sorting is controlled and monitored on a day-to-day basis.

## R&D

Vigorous research and development into environmentally friendly materials in alignment with the Sustainability trend. Initiated research and development into compostable materials and monomaterials to expand Formika's offering. One project already in place is the application of cellulose film, i.e. a biodegradable and compostable alternative to PP wrapping film. Commercially implemented solutions further include a Safety Cap, i.e. an aluminium can cover protecting against bacteria and providing consumer safety. We are also working on adding paper materials to Formika's offering.

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## SUSTAINABLE
## **PLANS FOR THE FUTURE**

We intend to build a solar farm and there is a chance for us to enjoy our own solar power starting from 2022.

The project is currently at the tendering stage and we hope to have the winning contractor for the PV project selected soon.

Holy Grail 2.0
Intelligent Sorting

Formika is Poland's first company to have joined Holy Grail 2.0.

The project perfectly aligns with our Sustainability strategy and may be a milestone for the future streamlining of the entire packaging sorting process worldwide.

asi Aluminium Stewardship Initiative

In 2021/2022, the Company intends to become a member of the Aluminium Stewardship Initiative (ASI), which brings together the world's major aluminium producers and converters.

ASI members directly contribute to driving sustainability in the global aluminium sector. Having joined ASI, the company aims to undergo ASI certification with a view to providing premium quality services to its customers.

FORMIKA
FLEXO PRINTING

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