FUJIFILM

# Superia ZP

## PRODUCT BROCHURE

Superia ZP represents Fujifilm's most advanced printing plate to date, featuring high performance technologies that deliver groundbreaking performance


FUJIFILM
SUPERIA

# A new era in print demands a new era in platemaking

**The demands on commercial printers, in terms of increasing efficiency and reducing costs in order to stay competitive, are ever increasing. These factors, combined with the growing impact of digital print technologies, mean many commercial printers are looking for ways to improve efficiencies to maximise the utilisation of their offset presses.**

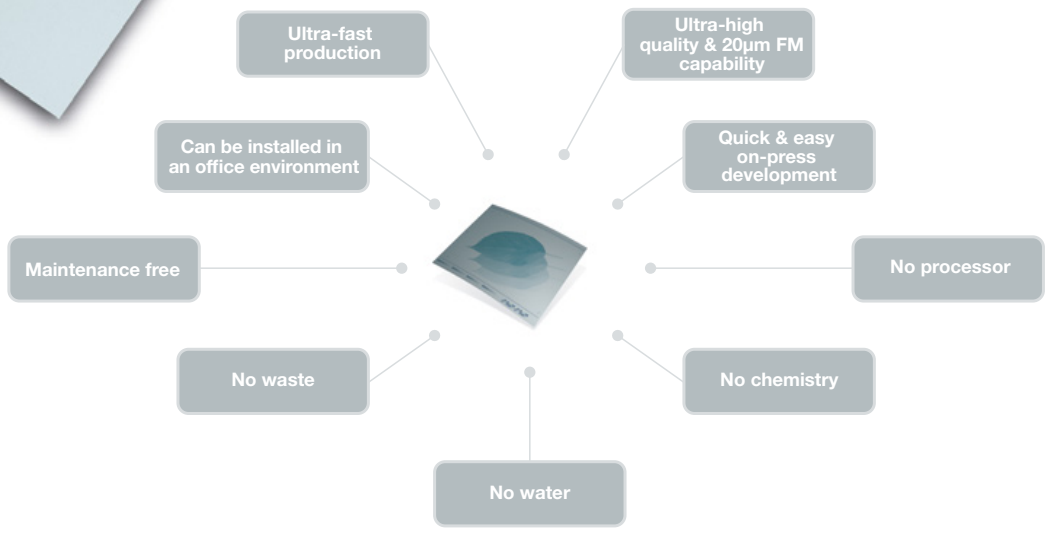
**Fujifilm's new processless plate, Superia ZP, provides the perfect opportunity to streamline production.**

## A huge global user base

Fujifilm introduced its first processless plate, PRO-T, into the market in 2006, and immediately saw a rapid uptake due to the attraction of not having to have a processor with its associated complexities and costs. Since this time, Fujifilm has been refining the coating and micro-graining technologies, introducing a second generation plate called PRO-T2 in 2008. There are now many printers using PRO-T around the world, on every different type of printing press, highlighting the reliability and performance of this plate.

## The most advanced printing plate ever

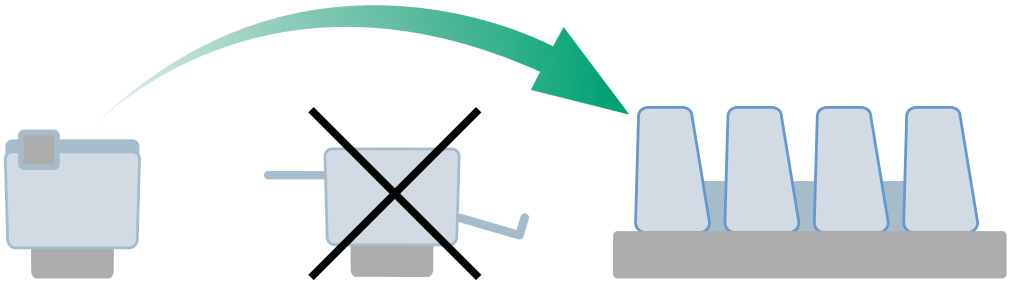
Superia ZP is the third generation of this groundbreaking plate, and represents Fujifilm's most advanced printing plate ever, incorporating three high performance technologies designed to optimise performance. And because it is a completely dry process, Superia ZP can be imaged in an office environment if required.




"Superia ZP provides the perfect opportunity to streamline production"

# Processless – the simplest way to make plates

Processless plate production represents the simplest way to make plates. Once the plate has been imaged in a platesetter, it is mounted directly on the press where the removal of the plate coating has been cleverly integrated into the start-up of the press. There is complete elimination of the processor, associated chemistry, energy required to power the processor, water and waste from plate production.




"There is complete elimination of the processor, associated chemistry, energy required to power the processor, water and waste"

## The fastest way from platesetter to press

As Superia ZP is highly sensitive, rated at 120 mJ/cm$^2$, it does not reduce productivity, and actually speeds up production compared to a traditional system requiring a processor or finishing unit, as the plate can be mounted directly on-press once imaged.

This means Superia ZP represents the fastest way of getting a plate on-press, and all the variables associated with processors and finishing units, including the time and labour involved with their maintenance, are all eliminated.

## Processless and low chemistry plates - Fujifilm's philosophy


The list of terms used to describe different plate types is almost endless, with different manufacturers employing different terms across their product ranges.

Fujifilm's policy is very clear. For plate production systems that reduce the amount of chemistry used (compared to traditional systems), the company uses the term "low chemistry". For systems where there is no processor, finishing unit, chemistry or gum, Fujifilm uses the term "processless".

It is Fujifilm's strongly held belief that the term "chemistry-free" is potentially misleading if it is used to describe a system that uses any sort of liquid that requires a Material Safety Data Sheet (MSDS).This is because such a document is legally required for any substance that needs advice and guidance with regards to handling. To call such a substance "chemistry-free" is therefore potentially misleading.

# Our most advanced printing plate ever

The latest version of this groundbreaking processless plate represents Fujifilm's most advanced printing plate to date. It features a number of high performance technologies designed to optimise performance. The first is a special new MULTIGRAIN V (MGV) technology. This new micro-graining process applied to the surface of the aluminium guarantees the widest possible latitude in terms of ink/water balance on-press. The second is a multi-layer coating unique to Fujifilm which provides different functionalities within ultra-thin layers.

These include an over-coat layer that controls the diffusion of oxygen, ensuring optimum plate stability and a long shelf life, along with a photosensitive layer that contributes to the plate's high sensitivity and productivity. With Superia ZP, this photosensitive layer also contains unique new Fine Particle Dispersion (FPD) technology that helps improve the softening of the non-image area. Finally, an undercoat layer incorporating Rapid Stable Start-up (RSS) technology dramatically speeds up the removal of the plate coating by the ink and ultimately onto the paper.

**Superia ZP incorporates groundbreaking technologies**

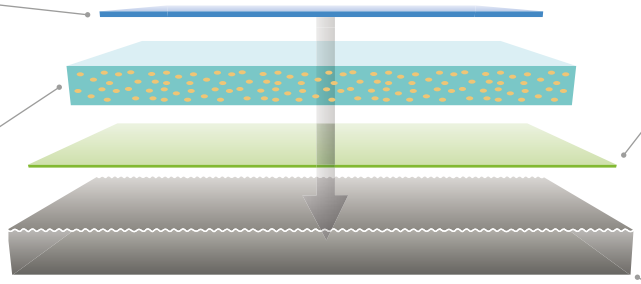
*This diagram highlights the advanced coating and micro-graining technologies that make up the new Superia ZP plate.*

**Over coat layer**

The over coat layer controls the diffusion of oxygen, ensuring optimum plate stability.

**Photosensitive layer**

The photosensitive layer contributes to Superia ZP's high sensitivity and productivity. New Fine Particle Dispersion (FPD) technology dramatically improves the rate the fount solution penetrates the coating, speeding up the on-press start-up routine and dramatically improving on-press performance.



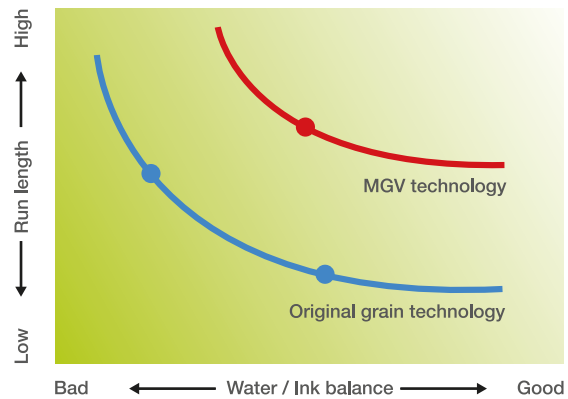
**Rapid Stable Start-up (RSS) Technology**

This undercoat layer incorporates RSS technology which helps to release the coating from the surface of the aluminium when the ink is applied.

**New MULTIGRAIN V (MGV) Technology**

Superia ZP has a highly specialised new micro-graining process applied to the surface of the aluminium, guaranteeing the widest possible latitude in terms of ink/water balance on-press.

**MGV Technology**



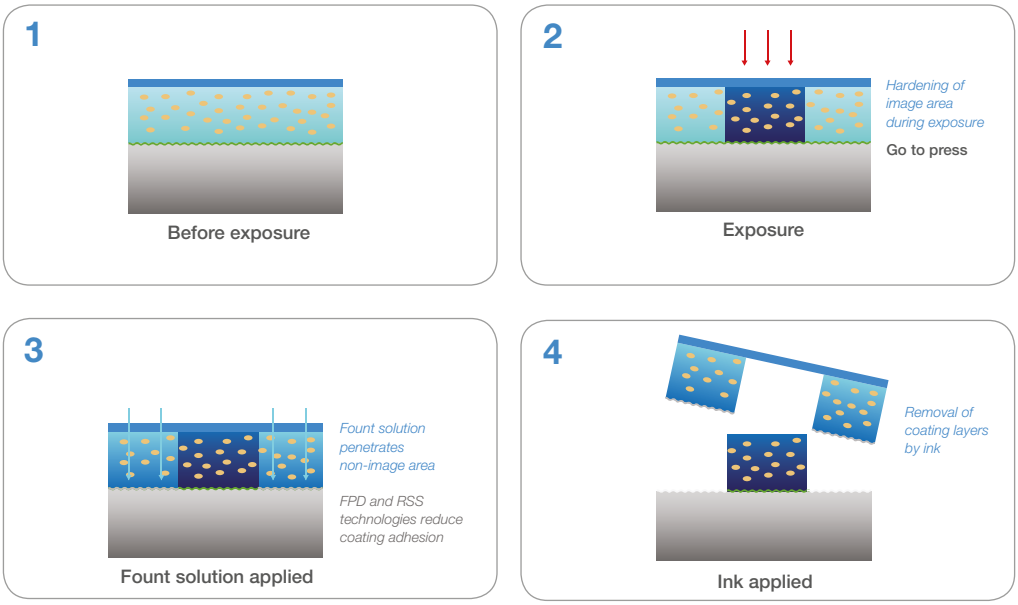

*This diagram highlights how Fujifilm's MGV technology improves run lengths and ink/water balance on press*

# The biggest breakthrough in on-press performance

Fujifilm processless has been successfully used by many printers around the World for the last five years. Despite this, Fujifilm scientists in Tokyo have been investigating ways in which the plate could be improved to make it even easier to use. The result represents Fujifilm's most advanced printing plate ever, with a combination of technologies that exhibit higher ink receptivity with much faster development on press, and a much wider tolerance of different press conditions, ink formulations and fount solutions.

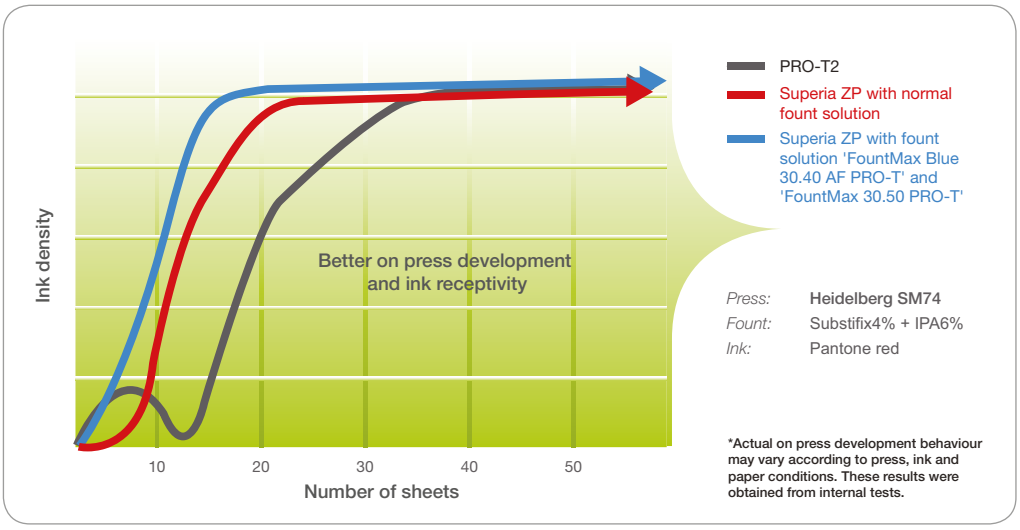
## How it works

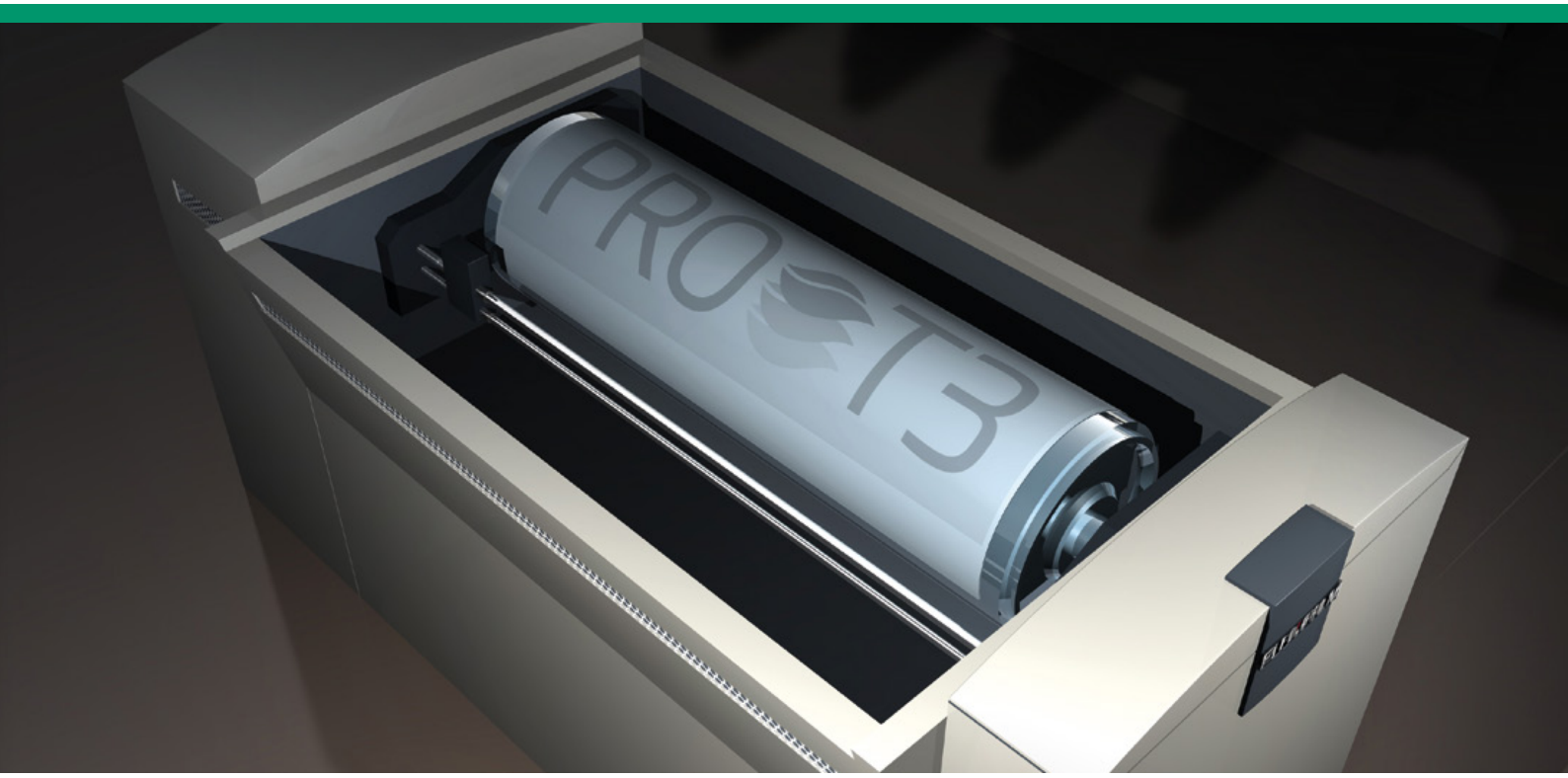
*These diagrams highlight at a microscopic level how Superia ZP works. The on-press development process has been optimised to such an extent that the plate coating is removed within a few sheets.*




## On-press development comparison

*This diagram highlights how the on press development and ink receptivity has been improved. Superia ZP works with any fount solution, but its performance can be further improved by using a dedicated fount from Fujifilm's PRESSMAX range. This is because the formulation of the fount has been carefully tailored to optimise the softening of the non-image area of the plate and therefore maximise the on-press development process.*

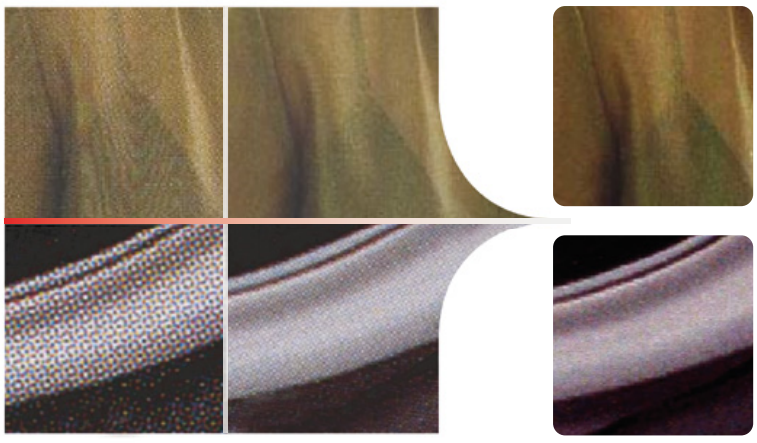





# Ultra-high quality plate production

Unlike some plate production systems that reduce chemistry consumption, Superia ZP does not suffer from any quality limitations, as it has a specification of 1-99% resolution and is capable of reproducing 20 µm FM screening. In addition, because ZP does not require any processing or finishing involving chemistry or gum, the stability and consistency of output is actually better than a traditionally processed plate. The end result is consistent, ultra-high quality print delivered quickly and easily.

## Stable, high quality printing




*This diagram highlights the ability of Superia ZP to reproduce various screening technologies and in particular 20 µm FM.*

# The ultimate environmental plate

The environmental performance of a printing plate can only really be judged by considering the carbon footprint impact across the product's full life cycle. This type of analysis is complex, but takes into account the impact on the environment of the product at all stages of its life, see diagram below:


For a plate, the product life cycle analysis applies to all component parts of the production. Superia ZP, there is complete elimination of the processor, associated chemistry, energy required to power the processor, water and waste from plate production. By removing all these aspects of processing, the reduction in the overall carbon footprint, and therefore impact on the environment, is significant.

| | Plate | Processor | Chemistry | Water | Waste Disposal |
|---|---|---|---|---|---|
| **Design** | ✓ | ✗ | ✗ | ✗ | ✗ |
| **Manufacture** | ✓ | ✗ | ✗ | ✗ | ✗ |
| **Transport** | ✓ | ✗ | ✗ | ✗ | ✗ |
| **Use** | ✓ | ✗ | ✗ | ✗ | ✗ |
| **Disposal** | ✓ | ✗ | ✗ | ✗ | ✗ |

*This table highlights the carbon footprint impact of the plate production process, and which elements are eliminated with Superia ZP.*

Tackling environmental issues also has business benefits. By introducing Superia ZP, a printer can significantly improve environmental performance and then promote these benefits to the print buyer. Introducing Superia ZP can also be used as part of a continuous improvement programme required for ISO 14001, for example.

Because of Superia ZP's environmental performance, Fujifilm has introduced a logo that a printer can add to its own literature to promote its environmental benefits.

PRINTED WITH
**FUJIFILM PRO–T**

In support of
**WaterAid**

As a result of the impact Superia ZP has in eliminating water use during plate production, Fujifilm is giving a percentage of the sales of Superia ZP plates in Europe, Middle East & Africa, to WaterAid. Fujifilm aims to raise at least €175,000 for the international charity that transforms lives by improving access to safe water, hygiene and sanitation in the world's poorest communities.

www.wateraid.org
Charity Registration No. 288701 (England and Wales) and SC039479 (Scotland)

## Technical specifications

| Superia ZP | |
|---|---|
| Print application | commercial |
| Laser type | thermal LD 830 nm (800 – 850 nm) |
| Technology | non-ablative, processless |
| Sensitivity | 120 mJ/cm$^2$ |
| Resolution | 200 lpi (1 – 99%) |
| FM screen compatible | yes, FM20 |
| Gauges | 0.15, 0.20, 0.30, 0.40 mm |
| Safelight | white 400 lux for two hours for latent image visibility |
| Latent image | up to 1 week |
| Contrast | acceptable after exposure |
| Developer / replenisher | N/A |
| Bath life | N/A |
| Gum | N/A |
| Run length* unbaked | 100,000 |
| Run length* baked | not practical |
| UV-ink characteristics (unbaked) | not recommended |
| UV-ink characteristics (baked) | not recommended |

** Run lengths are always dependent on laser power and press conditions*

## Compatible pressroom products

| Press chemical | Product name | Benefit |
|---|---|---|
| Fountain solution | FountMax Blue 30.40 AF PRO-T for reduced IPA up to 5% or without IPA<br>FountMax Blue 30.50 PRO-T for conventional use with IPA | Quick start-up, wide ink/water balance, stable printing condition |
| Powder | ECOPOWDER C 5020 (20 µm)<br>ECOPOWDER C 5030 (30 µm) | Coated, reduced consumption, dust free, BG approved |
| Wash | WashMax 60.65 MI, WashMax UV 100.01 | Fast cleaning, reduced restart waste |
| Plate cleaner | CS-1 | Scratch repair and surface cleaner |
| Quality checker | QC-1 | To confirm dot reproduction |

Please contact your local Fujifilm partner or visit www.fujifilm.eu/print

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