FUJ!FILM



Brillia HD PRO-T3

PRODUCT BROCHURE

Brillia HD PRO-T3 represents Fujifilm's most advanced printing plate to date, featuring high performance technologies that deliver groundbreaking performance.

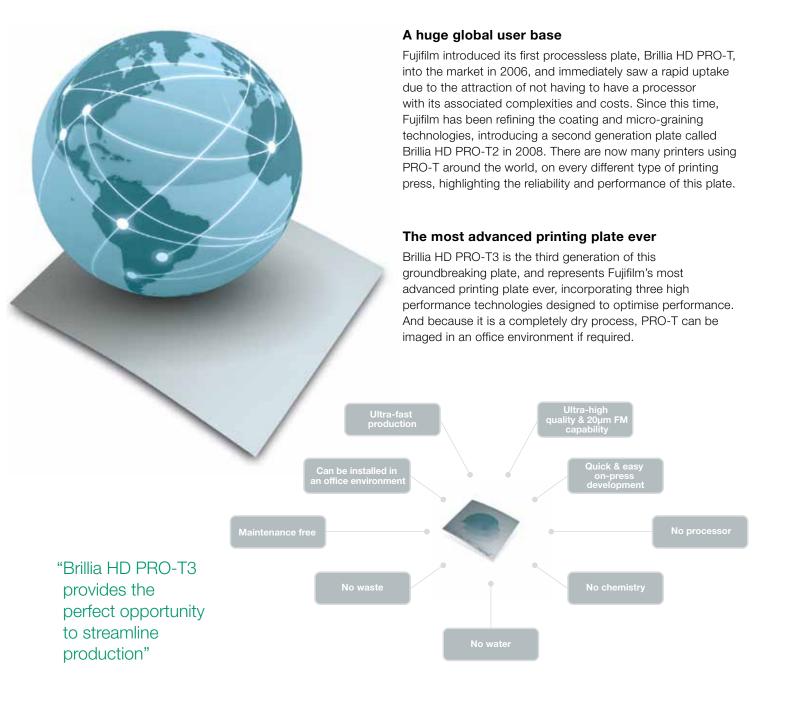




A new era in print demands a new era in platemaking

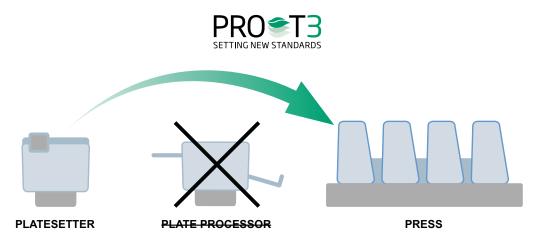
The demands on commercial printers, in terms of increasing efficiency and reducing costs in order to stay competitive, are ever increasing. These factors, combined with the growing impact of digital print technologies, mean many commercial printers are looking for ways to improve efficiencies to maximise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

Fujifilm's new processless plate, Brillia HD PRO-T3, 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 Brillia HD PRO-T3 is highly sensitive, rated at 120mJ/cm², 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 PRO-T3 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" or "lo-chem". 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 onpress. 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 PRO-T3, 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.

PRO-T3 incorporates groundbreaking technologies

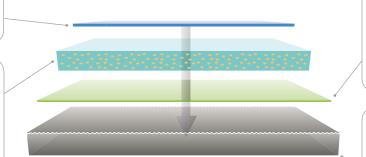
This diagram highlights the advanced coating and micro-graining technologies that make up the new PRO-T3 plate.

Over coat layer

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

Photosensitive layer

The photosensitive layer contributes to PRO-T3'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.



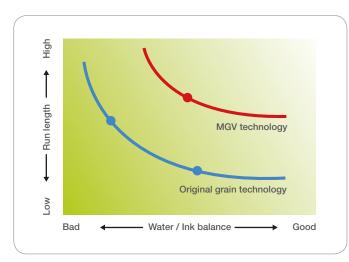
Rapid Stable Start-up (RSS) Technology

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

PRO-T3 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



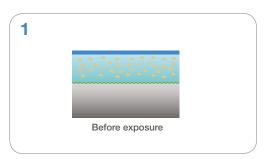
The biggest breakthrough in on-press performance

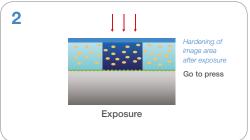
Brillia HD PRO-T has been successfully used by many printers around the World for the last five years. Despite this, Fujifilm scientists in Tokyo have been investigating ways in which the plate could be improved to make it even easier to use. The result represents Fujifilm's most advanced printing plate 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.

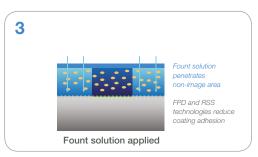
These diagrams highlight at a microscopic level how PRO-T3 works. The onpress development process has been optimised to such an extent that the plate coating is removed within a

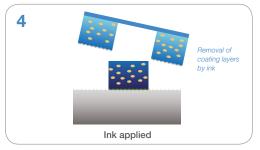
few sheets.

How it works



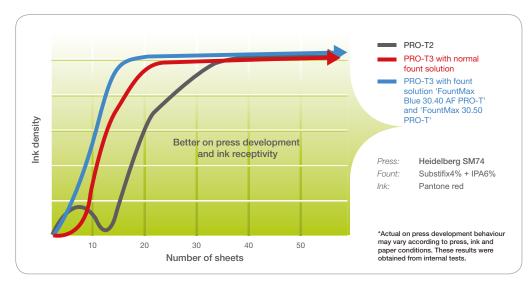






On-press development comparison

This diagram highlights how the on press development and ink receptivity has been improved. PRO-T3 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, Brillia HD PRO-T3 does not suffer from any quality limitations, as it has a specification of 1-99% resolution and is capable of reproducing 20µm FM screening. In addition, because PRO-T3 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 PRO-T3 to reproduce various screening technologies and in particular 20µm 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 process. With PRO-T3, 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	✓	×	×	×	X
Manufacture	✓	×	×	×	X
Transport	✓	×	×	×	X
Use	✓	×	×	×	×
Disposal	✓	×	×	×	X

This table highlights the carbon footprint impact of the plate production process, and which elements are eliminated with Brillia HD PRO-T3.









Tackling environmental issues also has business benefits. By introducing PRO-T3, a printer can significantly improve environmental performance and then promote these benefits to the print buyer. Introducing PRO-T3 can also be used as part of a continuous improvement programme required for ISO 14001, for example.

Because of PRO-T3's environmental performance, Fujifilm has introduced a logo that a printer can add to its own literature to promote its environmental benefits.





Technical specifications

Brillia HD PRO-T3	
Print application	commercial
Laser type	thermal LD 830 nm (800 – 850nm)
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 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	for reduced (up to 5%) or without IPA, FountMax Blue 30.40 AF PRO-T for IPA (above 5%) FountMax Blue 30.50 PRO-T	quick start-up wide ink/water balance stable printing condition
Powder	ECOPOWDER C 5020 (20µm) ECOPOWDER C 5030 (30µm)	better run length
Wash	WashMax 60.10 MI, WashMax UV 100.01	limited damage to plates
Plate cleaner	CS-1	limited damage to plates
Quality checker	QC-1	to confirm dot reproduction

Please visit www.pro-t3.com or contact your local Fujifilm partner for further information

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