

Inkjet Explainers

Inkjet and Media Compatibility Explained

Tuesday, December 15, 2020

Evaluate. Optimize. Grow.

#inkjetexplainer





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Our explainers for today





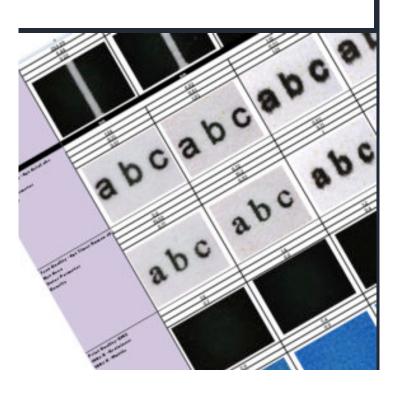
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Get the most from your time with us!

- SEND US YOUR QUESTIONS DURING THE WEBINAR
- Question control is in the lower left corner
- We may answer during the presentation
- There is a Q&A at the end
- Video and audio archive will be uploaded later today along with PDF of slides

What does compatibility mean?

3 Flavors of Compatible



1

Running through the press

2

Running through finishing

3

Meeting measurable performance characteristics

What is the compatibility challenge?

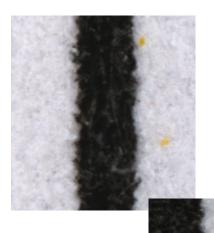
Keeping ink from diving into porous materials

Making ink stick to non-porous materials

Drying ink without damaging media

Porous Materials. Here's the challenge.

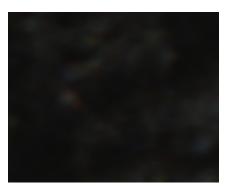
Edge Clarity



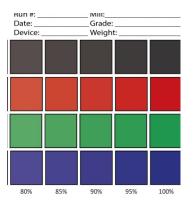
Text Clarity

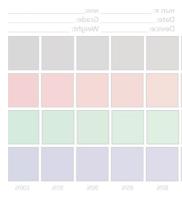


Mottle



Strike Through

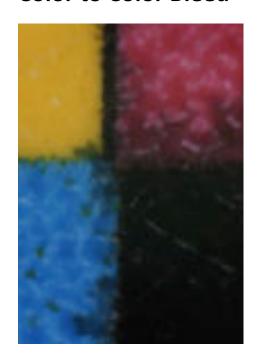




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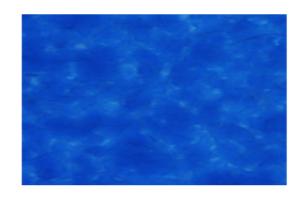
Non-Porous Materials. Here's the challenge.

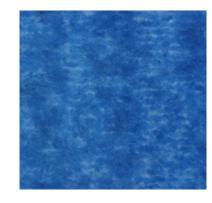
Color to Color Bleed



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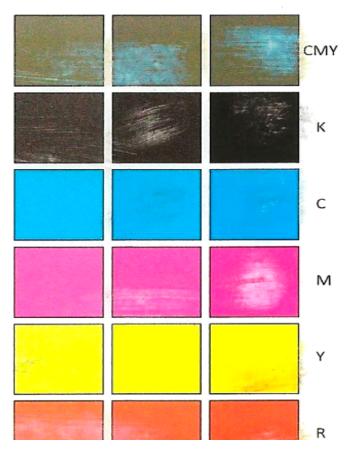
Coalescence





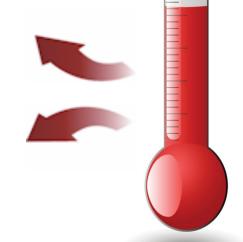
Non-Uniformity

Adhesion



Fun Fact about Aqueous Ink on Paper

Printed Ink on **Uncoated** paper responds faster to heat settings than flow.





Printed Ink on **Coated** paper responds better to increased air flow than higher temperature.

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Fun Fact about Aqueous Ink on Paper



Leaving a hard shell with tacky ink underneath.



Causing adhesion and rub-off issues

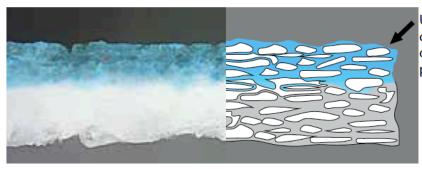
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How do OEMs and mills do it?

There's more than one way to get results

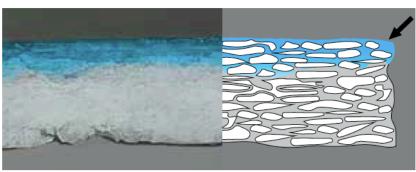






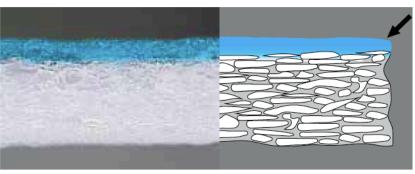
Uncoated allows colorant to flow deeper into the paper fibers.

Uncoated



Treatment of surface and paper fibers traps colorant closer to the paper surface.

Inkjet Treated



A semi-porous coating layer quickly binds colorant on paper surface.

Inkjet Coated

Fluids Drive Compatibility

- Inkjet Formulated Papers
 - Treated
 - Coated
- Priming fluids
 - Anilox applied
 - Jetted

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Scanning Electron Microscopy (SEM) Cross Section Scan 3 Papers, Aqueous Inks

Ink formulation drives compatibility

Colorant

Carrier

Humectants

Solvents

Resin

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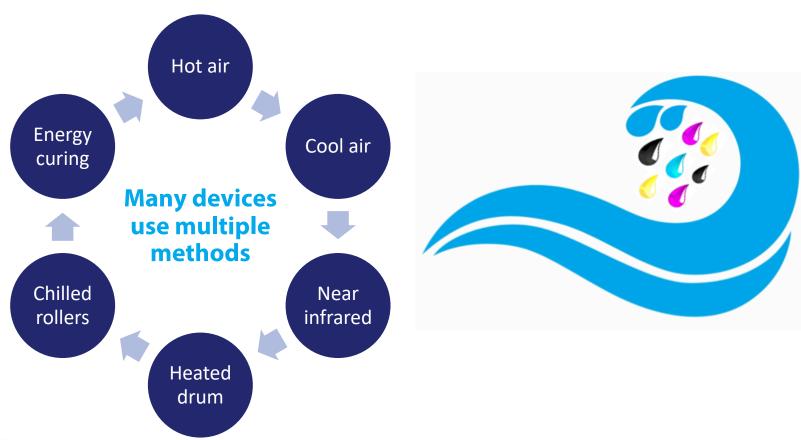


There is no single best answer

	PROS	CONS
Inkjet formulated papers	Performance tuned for inkjet	Higher media cost Limited media range
Anilox priming/coating	Wider media range Use only when needed	Additional cost More fluid to dry
Jetted priming/coating	Wider media range Less fluid than anilox	Additional cost More fluid to dry Not optional like anilox
UV /energy cured inks	Very wide media range More durable	More expensive ink Speed limitations
"Sticky," polymer inks (primer independent)	Very wide media range More durable	More expensive ink (but less than UV)

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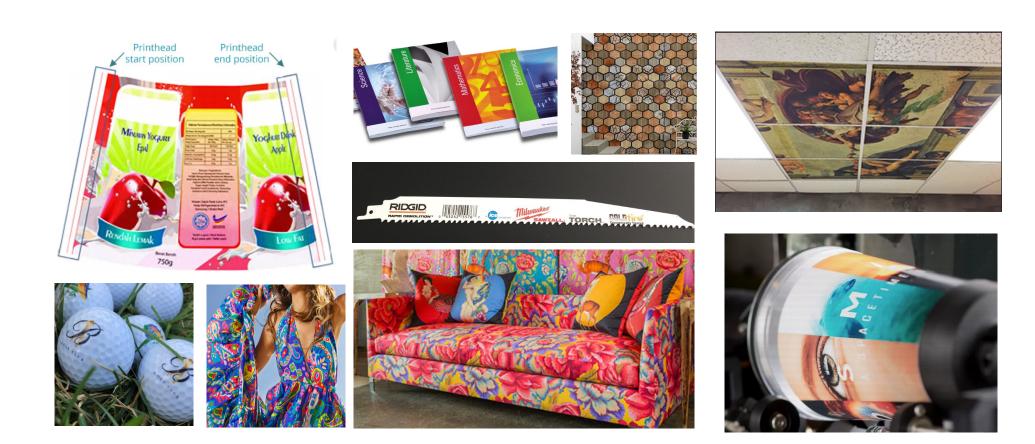
Advanced drying improves compatibility



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What is Inkjet compatible with?

That depends on the device



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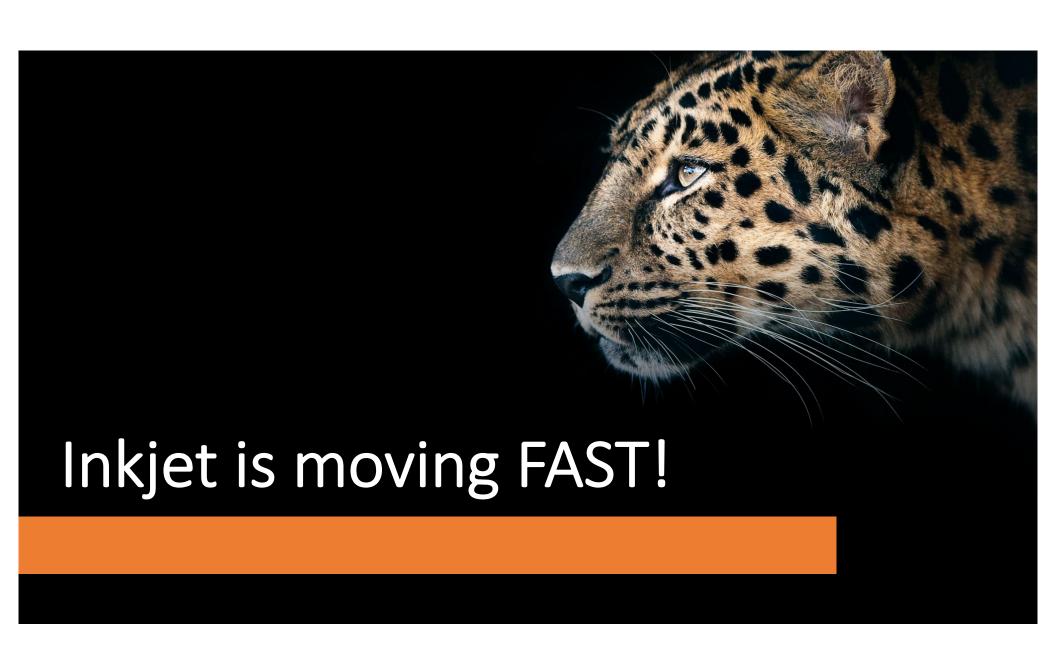








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Upcoming Explainers

- January Understanding Ink Estimating
- February Inkjet Head Technology Explained
- March Understanding Inkjet Paper Qualification

Questions?

Inkjet Insight provides valuable tools and resources to help companies objectively **evaluate** the potential of inkjet for their business, **optimize** their operations and **grow** their businesses using production inkjet.

Our Message to Printers, OEMs and the Industry at Large Evaluate. Optimize. Grow.

Repeat



Need something explained? Let us know.

For more information please contact:

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Mary Schilling

Mary@inkjetinsight.com

Thank you for your time and attention.

We look forward to the opportunity to help you reach new customers through valuable technical and educational content and to grow your business through market analysis and expert media qualification support.