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MUDRAN Prakash



May 2024

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105 Years of Innovation and Collaboration



This year marks the 105th anniversary of the Poona Press Owners Association (PPOA), established on May 19, 1919. As we commemorate this milestone, it is a fitting occasion to reflect on the profound evolution of the printing industry, an evolution that the PPOA has both witnessed and contributed to

over more than a century.

From the Gutenberg Press to digital printing, the journey of print technology has been marked by remarkable innovations that have transformed how we disseminate knowledge and share culture. The PPOA was founded in an era when printing was already established as a pivotal medium of mass communication. Its establishment sought to unify the diverse interests of print shop owners in Pune, fostering a collaborative environment that encouraged technological adoption and set standards for quality and ethics in printing.

The evolution of printing technologies, as detailed in our historical records, reflects broader societal changes. Each advance, from the mechanical presses of the 19th century to the digital and 3D printing technologies of today, has brought about shifts in production speed, cost, and the very nature of what can be printed—from books and newspapers to 3D objects and beyond.

The PPOA has thrived by adapting each of these technological shifts. As print media faced the onslaught of digital transformation, the association helped its members navigate these changes, promoting a blend of tradition and innovation. This approach has ensured that print remains relevant, integrating new technologies while continuing to champion the tactile, personal quality that printed materials uniquely offer.

As we celebrate the PPOA's 105th anniversary, we reflect on a legacy that showcases the power of collaboration in an industry often described as nearing its end. Yet, as history has proven, print adapts, thrives, and continues to hold an essential role in our society. It evolves to meet new challenges and serve new purposes, proving its place as an indispensable medium in our cultural and informational landscape.

Here is to the Poona Press Owners Association, to its century-long journey of innovation, and to the many milestones still to come. May we continue to evolve, inspire, and connect through the art of print.

Rahul Marulkar,

President, PPOA

The Next Chapter



In this edition of Mudran Prakash, we explore the vibrant landscape of the printing industry, spotlighting the breakthroughs and strategic innovations that may act as the next chapter in the evolution of the industry. As the printing world evolves with rapid technological advances and shifting

market dynamics, this issue brings into focus the key trends and developments driving growth and efficiency across the sector.

A significant highlight of our industry's growth is evident in the advancements in digital printing technologies. Reports on the latest offerings from HP, Canon and Konica Minolta showcase groundbreaking developments in high-volume production and workflow automation. HP's new Indigo models emphasize unprecedented productivity and sustainability, while Konica Minolta's Bizhub i-Series MFPs redefine print room efficiency with their cutting-edge features and eco-friendly designs.

The resilience of the paper industry, as detailed in our coverage, also mirrors the broader challenges and opportunities facing the global printing landscape. With a strong domestic market driving growth, Indian paper manufacturers are navigating the complexities of global demand fluctuations, yet they continue to thrive, highlighting the sector's adaptability and strategic foresight.

In our exploration of the industry's advancements, a critical aspect covered in this issue is the mastery of cost accounting within the printing sector. A recent enlightening session hosted by the PPOA, led by CA Uday Dhote, delved into the nuances of cost management tailored specifically for print businesses. Dhote's insights into cost structures and accurate pricing underscore a key area where print businesses can enhance their financial acumen, ensuring sustainability in a rapidly evolving market.

Technological innovations are not limited to digital printing and paper production. The adoption of sophisticated ink additives and the strategic management of printing costs are crucial for enhancing printability and durability, ensuring that our industry remains competitive and cost-effective. These technical advancements are not just improving our products but are also setting new standards for environmental stewardship and operational efficiency.

Your stories, insights, and experiences make our narrative richer. Share them, and let's craft a future as impactful as our past. In closing, we extend our heartfelt congratulations to every member of the PPOA on our 105th anniversary!

Dr. Ganesh Datye,

Editor, Mudran Prakash



Canon India Expands Large Format Printing

Launches New 7-Colour imagePROGRAF GP and 12-Colour PRO Series

Canon India is propelling its technological forefront in the large-format printing arena with the launch of its advanced 7-colour imagePROGRAF GP and 12-colour imagePROGRAF PRO series printers. These new additions aim to meet the rising demand for high-quality, durable prints in the graphics arts, photography, and fine art sectors. This strategic expansion underscores Canon's commitment to leading the digital imaging market, addressing evolving industry needs, and supporting the vibrant creative community in India.



The team at Canon India demonstrates the capabilities of the new imagePROGRAF GP and PRO series. The GP series, with its vibrant orange and grey inks, revolutionizes the graphic arts market, while the PRO series sets new standards for print quality in professional photography and fine art.

anon India, a leader in digital imaging solutions announced the launch of six new cutting edge large-format printers. Among these, a new 7-colour category was announced as part of the imagePROGRAF GP series (GP-526S/546S/566S) tailored for the graphics art market harnessing the new LUCIA PRO II pigment ink to deliver impressive print quality for bright, eye-catching posters & photographs. Further, strengthening its 12-colour category with its imagePROGRAF PRO series lineup, three new printers were unveiled (PRO-526/546/566) with superior

print quality for photography and fine art applications, promising print longevity of up to 200 years.

Sharing his thoughts on the launch, Mr. Manabu Yamazaki, President and CEO, Canon India said, "With the professional printing industry in India witnessing remarkable growth owing to technological innovations, our latest launches are in response to the increasing demand for quality output. The newly launched GP Series 7-colour Large Format Printers and the expansion of our PRO Series 12-colour Printers underscore Canon's commitment of consistently

pioneering technology that caters to evolved industry needs. These advancements aim to empower India's vibrant creative community by providing tools that push the boundaries of digital imaging for professionals in the graphics art, photography, and fine art sectors. By doing so, we endeavor to shape the future landscape of printing in the country which has immense potential."

Commenting on the new lineup, Mr. C Sukumaran, Senior Director, Products & Communication, Canon India, said, "The introduction of the 7-colour LUCIA PRO II pigment inks

imagePROGRAF GP Series: Vivid and Smooth Gradation Print in High Speed

With LUCIA PRO II 7-colour pigment inks which include orange and grey inks, vibrant prints with smooth gradation can be achieved when it comes to fine texture and high-quality posters for different market segments such as in-house advertising offices and print shops. Designed with fast speed, the GP series deliver good quality prints within a shorter time. With high colour reproducibility, the new GP series has achieved 96% coverage in PANTONETM FORMULA GUIDE Solid Coated color book and supports printing of product advertisements including corporate colors. Prints on glossy or semi-glossy paper have excellent scratch resistance, which makes post-production handling such as carrying, displaying and packing easier.

imagePROGRAF Pro Series: Preserving Expressive Photography and Fine Art Prints

The LUCIA PRO II 12 colour pigment inks provide a wide colour gamut which is well-suited for photo print images and fine art prints on different paper media. Deep black density on fine art media can produce more expressive prints and expands on colour reproduction in dark areas so fine details in these areas are more visible. With glossy or semi-glossy paper that retains the photo print quality with deeper blacks, printed deliverables achieve better scratch resistance with outstanding light resistance for long-term preservation with high image quality.





Our latest launches respond to India's growing demand for high-quality printing. The new 7-color GP and 12-color PRO series embody Canon's commitment to pioneering technology that meets the evolving needs of the professional printing industry. This initiative supports India's dynamic creative community, helping shape the future of printing in the nation.



• Manabu Yamazaki, President and CEO, Canon India

Key Highlights of the Canon imagePROGRAF Series

- New Launches: 7-colour imagePROGRAF GP series and 12-colour imagePROGRAF PRO series.
- Technological Advancement: Incorporation of LUCIA PRO II pigment inks enhancing colour precision and longevity.
- Professional Suitability: Ideal for graphic arts, photography, and fine art printing with features designed to improve operational efficiency and print quality.
- Innovative Design Features: New translucent covers, interior lighting, Smart Roll Paper Set, and enhanced user interface for easier maintenance and monitoring.

in our new GP series represents a significant leap forward in color precision and print quality for the graphic arts market. These printers are designed to produce high-quality photographic content with enhanced color depth and fine textures. On the other hand, our PRO series continues to excel in delivering unmatched color range and longevity, crucial for fine art and professional photography. The innovative design features of both series, like the new translucent covers and interior lighting, reflect our focus on enhancing user experience and operational efficiency."

Both series come equipped with new designs to simplify users' daily operations

With new translucent exteriors installed for roll paper covers and ink tank covers, users will be able to check on consumables. New interior lighting enables users to view the

output while printing. Moreover, paper type with remaining roll paper estimation and ink levels are visible at one glance from the wide printer panel. With the newly developed ink sensing system, ink ejection condition is periodically monitored to optimize ink landing position to maintain high image quality and prevents image degradation due to colour shift.

In addition, the "Smart Roll Paper Set" function is available, which enables automatic paper feeding as well as automatically detects the paper type and estimates the remaining amount of paper. It completes the roll paper set in a shorter time by speeding up the paper feed process. This reduces the hassle of manual coordination for printer maintenance and operations, making it easy to ensure stable operation.

Pioneers in Digital Printing: The Enduring Legacy of Kadam Digital Transprints

In the dynamic world of printing and digital imagery, few tales resonate like the journey of Kadam Digital Transprints Pvt. Ltd., a Pune-based enterprise that transformed from a modest setup into a technological leader in the digital printing industry. This story explores the unwavering dedication, strategic foresight, and innovative leaps that propelled the company to remarkable success.



File Photo

HP Indigo 12000 Digital Press

n 1990, with just a meager capital of six thousand rupees, Madhura and Sanjay Kadam embarked on what would become a revolutionary path in the printing business. Starting from renting a small table for their operations, the couple managed every aspect of the business, from sweeping the floors to meticulous financial management, illustrating their belief that no task was too minor when building a business from the ground up.

Their first major technological investment was an HP laser printer,

which marked the beginning of their expansion. The Kadams didn't just grow their resources; they strategically enhanced their services with each step. From basic tracing, they advanced to acquiring scanners and a positive machine, significantly boosting their operational capabilities.

Kadam Digital's journey took a substantial leap when they moved into their own 550 square foot space in Narayan Peth. Here, they introduced Pune's first digital printer, which garnered an overwhelming response from the market due to its superior quality outputs. This marked a pivotal moment, as maintaining high quality became the foundation of their growing reputation.

The Kadams were pioneers once more when they introduced Pune's first Computer to Plate (CTP) machine in their new office space, which spanned 1,375 square feet. This expansion wasn't just physical but also corporate, as they incorporated their business, with family members



12000 Digital Press during PAMEX 2017.



Kunal and Sanjay Kadam while acquiring HP Indigo Former Mayor of Pune late Mukta Tilak and Shailesh Tilak with the first print copy from HP Indigo 12000 Digital Press at Kadam Digital.





From a humble beginning with a single table to pioneering advanced digital printing in Pune, our path has been about more than just growth—it is about setting standards and exceeding expectations. As one of the few women in this industry, I take pride in demonstrating that women can not only enter but also excel and lead in the printing business. Our narrative is a message to the industry: innovate, persevere, and maintain quality, and success will follow.



Madhura Sanjay Kadam, Director, Kadam Digital Transprints Pvt. Ltd.

Kadam Digital: At a Glance

- Founded: In 1990 by Madhura and Sanjay Kadam
- Specializations: Wedding albums, menu cards, large-format prints, full-scale binding developments including UV, lamination, wiro, creasing, and foiling
- Notable Technology: First in Pune to use a digital printer and a CTP machine
- Current Capabilities: HP Indigo 12000 Digital Press, handling up to 380 GSM paper, capable of a variety of finishes

becoming directors, ensuring the legacy and professionalism of their operation. Their son, Kunal, joined the company as a director after completing his B.E. and PGDM in 2015. His technical and management skills have brought fresh perspectives and have been pivotal in driving the company's innovation and adapting to new market challenges.

Their latest pride, the HP Indigo 12000, represents a significant milestone, being the second such machine in Asia and costing Rs. 10 Crore. Capable of printing on large formats up to 20 x 30 inches and handling heavy paper up to 380 GSM, this machine has placed Kadam Digital at the forefront of the high-end printing market.

In an industry where there are very few women leaders, Madhura Kadam stands out as an exception. Her leadership has not only propelled the company to a current annual turnover of Rs. 6 crore, significantly up from the initial investment of Rs. 6 thousand, but also serves as an inspiration for women to start their own businesses

and venture into the print business.

Recognizing the efforts of Mrs. Kadam, she was felicitated with the PPOA's coveted 'Yashaswini Award' in 2010. This acknowledgment highlights her role as a trailblazer in the industry, further inspiring women in the entrepreneurial space.

The Kadam family extends their gratitude to the community of leading printers in Pune and members of the the Poona Press Owners Association (PPOA) for their continued support and collaboration. The shared expertise and mutual encouragement from these industry peers have been invaluable in navigating the challenges and successes of the printing industry.

The Kadam family's journey is not just about technological acquisitions but about a relentless pursuit of excellence and a deep commitment to customer satisfaction. Their story underscores the reality that with perseverance and continuous adaptation, any business can thrive and lead in its industry.

Packaging Innovations Steal the Show at LogiMAT 2024



LogiMAT 2024, held at Messe Stuttgart from March 19 to 22, concluded with record-breaking attendance and a spotlight on the latest advancements in the packaging sector within the broader intralogistics landscape. This year's edition saw a remarkable increase in exhibitors and visitors, demonstrating the event's global reach and the industry's focus on innovative packaging solutions.

ogiMAT 2024, the premier International Trade Show for Intralogistics Solutions and Process Management, wrapped up with significant achievements in both scale and scope. The event attracted 67,420 industry professionals, marking an 8.1% increase from

previous shows.

Over three days, 1,610 exhibitors unveiled their latest products and solutions across an expanded net exhibit space of 67,000 square meters, totaling 1,01,649 visitors, exhibitors, and media representatives gathered at the Messe Stuttgart.

The event was notably international, with 35% of exhibitors traveling from outside Germany, including major contingents from China, North America, India and Australia. This diverse participation underscored Stuttgart's strategic importance in Europe, benefiting from



- Global Reach and Diversity: LogiMAT solidified its position as a leading international trade show, with significant international participation and a comprehensive display of global intralogistics technologies.
- Investment and Business Opportunities: The event drew a high level of senior managers and decision-makers, with 38% of visitors attending with specific investment projects in mind, and 24% concluding or planning to conclude contracts during or immediately after the show.
- Future Events: Looking ahead, LogiMAT will continue its international presence with upcoming events in Shenzhen, Bangkok, and Mumbai, with the next Stuttgart event scheduled for March 11-13, 2025.



LogiMAT India, February 28 to March 1, 2024, IEML, Delhi NCR, India

LogiMAT China. May 8-10, 2024, SZCEC, Shenzhen, China

LogiMAT Southeast Asia, October 16-18, 2024, BITEC, Bangkok, Thailand

Innovations in Packaging at LogiMAT 2024

LogiMAT 2024 in Stuttgart highlighted a remarkable array of advancements in the packaging industry, emphasizing sustainability and efficiency. The event showcased cutting-edge solutions tailored to meet the modern demands of distribution logistics, particularly focusing on the reduction of environmental impacts and the enhancement of packaging processes.

Environmental Focus:

The trade show featured packaging solutions that utilized environmentally friendly materials for both cushioning and outer packaging. Emphasis was placed on systems designed for reuse and recycling, responding to the increasing consumer and regulatory demands for sustainable practices.

Customized and Smart Packaging Solutions:

Innovators at LogiMAT presented a variety of customized packaging options that align with the unique needs of businesses, ranging from small part packaging to single-item packages. These solutions included the use of advanced technologies to minimize unused volume and facilitate recycling. The event highlighted systems that integrated smart technologies to improve packaging efficiency and adaptability.

Innovative Materials and Systems:

Several exhibitors introduced new materials and systems aimed at improving the lifecycle management of packaging. Notable innovations included the use of honeycomb cardboard and industrial wood packaging solutions that allow for high customization and direct integration with production systems via IT interfaces.

Advanced Machinery for Modern Needs:

The exhibition also featured advanced machinery, such as semi-automated packaging machines capable of handling various paper qualities to produce eco-friendly paper bags. Additionally, innovative container solutions were demonstrated, including a new design that combines the durability of rigid containers with the flexibility of collapsible models, significantly reducing storage and transport space.



direct access to major transport links such as the autobahn and an international airport, soon to be connected to the high-speed rail network.

This year's show featured more than 120 innovative product debuts, many focusing on the evolving needs of the packaging industry. Innovations aimed at enhancing packaging efficiency and sustainability were particularly prominent, reflecting the sector's growing emphasis on reducing environmental impacts and improving cost-effectiveness.

Michael Ruchty, Exhibition Director from EUROEXPO Messe- und Kongress-GmbH, highlighted the creative expansion of the event space within the same venue and the integration of innovative changes that continue to attract industry leaders and professionals to LogiMAT. He emphasized the event's role as a leading platform for showcasing intralogistics innovations and conducting substantial business transactions.

LogiMAT 2024 not only maintained but elevated its status as a hub for cutting-edge solutions in intralogistics and packaging. The event's continued expansion and success story reflect its critical role in shaping the future of industry practices, driving innovation, and facilitating key business deals across the globe. The printing and packaging industry, in particular, found immense value in the new technologies and insights presented, promising exciting developments for the future.



Creative Printing Ink Additives:

Enhancing Printability and Durability of Printed Products

This technical article delves into the critical role of cutting-edge ink additives in enhancing the printability and durability of printed products. The article provides a comprehensive analysis of how these additives interact with substrates and ink components, significantly improving the quality and durability of the final printed output, thereby setting the stage for advances in the printing sector.



Prof. Anjan Kumar Baral, Ph.D. Department of Printing Technology GJUS&T, Hisar, Haryana, India Chairman, MSD 6, BIS, Govt. of India

Abstract

In order to increase the printability and longevity of printed products, this technical article examines cutting-edge ink additives that are used for the preparations of printing inks. The development and use of different functional additives, such as surfactants, binders, and dispersants, that basically intended to improve printing ink performance is the main emphasis of the article. The lifespan of printed products. tolerance to environmental variables, and adherence to different printing substrates are

some of the crucial areas for development. By highlighting the ways in which these additives interact with substrates and ink components, the article provides a thorough explanation of how these interactions affect the print quality of the final printed output. A wider range of applications and higher standards in the printing sector may arise from the use of these chemicals/additives, since various findings show notable improvements in print quality and durability of the printed materials with suitable printing ink additives.



Printing Inks (CMYK)

Introduction

An additive refers to a substance introduced in minor quantities to enhance, fortify, or modify something. Additives for printing ink are essential to the functionality and quality of printed products. Specialized chemicals known as additives are added to ink formulations to improve a range of attributes including as adhesion to diverse substrates, colour brilliance, drying time, and durability. In order to address the number of demands of the printing industry and enable advances in printing technology, printing ink additive development and use have undergone substantial evolution. To obtain excellent prints and productive manufacturing procedures, additives must be incorporated into printing inks. Each additive performs a particular role that enhances the ink's overall functionality. Faster handling and processing of printed materials, for example, is made possible by drying agents accelerated drying periods, which is crucial in high-volume printing drying and settings. In order to maintain consistent print quality over large printing quantities, dispersing agents provide uniform colour distribution.

Because of their great adaptability, the inks may be applied to almost any surface, regardless of its size, shape, or texture. They can be applied to textiles, glass, metal, plastic, and paper for colouring. Unlike paints and varnish coats, printing inks are applied to the surface as a very thin layer, with a thickness ranging from 2 to 30 μm (microns) depending on the particular printing technique. The three primary components of an

ink's visual properties are its colour, transparency, and gloss. The ink's colour is also influenced by a number of interconnected characteristics. The colour's purity tells us how black or light the ink will be, and its intensity and saturation also affect it. Proper selection and use of printing ink additives will help to formulate printing ink to produce the intended visual effect for the particular printing applications.

What is the main composition of printing ink?

Ink is an indispensable material for printing and packaging applications. A wide range of materials, including paper, foil, plastic, metal, leather, ceramics, laminates and paperboard, can be printed on using printing inks in printing machines. These substances could have a cylindrical or flat form. Printing technique and substrate type determine the particular printing ink composition. At present, in the international market, inks are mostly composed of 20% to 40% binders, 5% to 15% pigments, 40% to 60% organic solvents and 2% to 5% additives. The binder material is an adhesive resin, which is a key link component of the ink, which binds the pigment and the printed material together, plays an adhesion role, and makes the ink more glossy and shiny. Pigments determine the colour category of the particular printing ink. The solvent dissolves the resin, adjusts the viscosity, adjusts the drying speed, and improves the wetting effect on the printing material. Additives play a role in improving viscosity, weather resistance, aging resistance, and increasing gloss.

What is the Function of Additives in Printing Inks?

Additives in printing inks are essential for several reasons, as they enhance the performance, quality, and functionality of the printing inks. Some of the basic functions of additives in printing inks are listed below;

- 1. Dispersion: Ensure uniform distribution of pigment particles.
- 2. Wetting: Improve ink's ability to spread evenly on substrates.
- 3. Drying: Accelerate the drying process. Prevent freshly printed sheets from sticking together.
- 4. Adhesion: Enhance ink adhesion to various substrates.
- 5. Flexibility and Flow: Increase the flexibility and elasticity of the ink film. Adjust viscosity and flow properties.
- 6. Foam Control: Reduce foam formation during production and application.
- 7. Levelling: Help form a smooth, uniform film on substrates.
- 8. Stability: Protect ink from microbial growth and spoilage. Maintain chemical stability of ink components.
- 9. Durability: Protect printed materials from UV degradation. Prevent oxidation of ink components.
- 10. Special Properties: Impart electrical conductivity for printed electronics. Create fluorescent and phosphorescent effects. Introduce fragrances for scented printing applications.

Types of Printing Ink Additives

Printing ink additives can be broadly categorized based on their functional contributions to the ink properties. Ink additives are used to adjust the ink to adapt to different printing conditions of auxiliary materials. There are many types of ink additives, generally used such as; sticky agent, light agent, drying agent, slow drying agent, thinner, friction-resistant agent, varnish, etc. In addition to the above several commonly used ink additives, there are anti-scuffing agent, anti-bubble agent, printing gold oil, etc.. From the perspective of improving the efficiency and quality of printing, according to the changing printing

conditions, in the ink selected to add some additives, to ensure that the normal printing is beneficial. The main types of additives which are frequently used in manufacturing of printing ink include:

- 1. Rheology Modifiers
- 2. Dispersants
- 3. Wetting Agents
- 4. Slip and Rub Resistance Agents
- 5. Drying Agents
- 6. UV Stabilizers
- 7. Adhesion Promoters
- 8. Anti-Blocking Agents
- 1. Rheology Modifiers: Rheology modifiers modify the ink's flow and viscosity to make it appropriate for various printing processes, including screen, gravure, and flexography. By ensuring that the ink maintains a constant flow, these additives help to avoid problems like smudging or uneven application.
- 2. Dispersants: The stability of pigments and other particle matter in the ink depends on dispersants. They provide a consistent colour distribution, lessen sedimentation, and inhibit agglomeration.
- 3. Wetting Agents: Wetting agents improve the ink's ability to spread evenly across the substrate by lowering its surface tension. This quality is very important for producing words and images that are crisp and clear.
- 4. Slip and Rub Resistance Agents: Inks are enhanced with slip and rub resistant compounds to increase the longevity of printed goods. These chemicals improve the printed surface's resistance to wear and reduce friction.
- 5. Drying Agents: Drying agents, often known as driers, expedite the ink drying process, which is necessary to sustain high production rates and minimize smearing. They play a particularly significant role in gravure and offset printing.
- 6. UV Stabilizers: UV stabilizers prolong the life of printed materials by shielding them from UV light-induced

deterioration. These are especially crucial for materials that are exposed to sunlight, such outdoor signage.

- **7. Adhesion Promoters:** Adhesion boosters improve the ink's adherence to the substrate, guaranteeing that the print will hold up in the face of mechanical force and unfavourable environmental factors.
- 8. Anti-Blocking Agents: An essential characteristic for the packaging business, anti-blocking chemicals keep printed materials from clinging to one another when rolled or stacked.

Selection Guide for Printing Ink Additives

The quality, performance, and versatility of the finished product are all greatly influenced by the additives chosen in the dynamic world of printing ink manufacture. Specialty printing ink demand is increasing across industries, and selecting the right additives is essential to fulfilling application needs and getting the best results. Choosing the appropriate additives for printing ink formulations requires careful consideration of a number of important criteria. The printing ink's intended use must first be fully understood. The selection of additives should be guided by the precise performance characteristics and environmental circumstances that the ink will experience, regardless of the application packaging, commercial printing, textiles, or professional uses. For instance, for inks used in packaging, chemicals that improve adhesion and abrasion resistance can be crucial, whereas for inks used in commercial printing, additives that encourage vibrant colours and quick drying periods might be more significant.

Compatibility of the additives with the base ink formulation is another important factor to take into account. The seamless integration of additives with the ink ingredients is crucial to guarantee stability, consistency, and dependable performance. To prevent detrimental effects on the properties of the ink and the effectiveness of the application, compatibility testing

and a comprehensive analysis of any possible interactions between additives and ink ingredients are essential. Furthermore, while choosing printing ink additives, consideration should be given to the regulatory and environmental situation. It is imperative to adhere to regulations pertaining to hazardous substances, volatile organic compounds (VOCs), and other environmental norms. Environmentally friendly and sustainable ink formulation additives are becoming more and more in demand due to shifting industry laws and consumer preferences.

Mechanisms and Impact on **Printability and Durability**

1. Rheology and Flow Control

Rheology modifiers modify the ink's viscosity, which directly affects how it flows when printing. Inkjet printing requires accurate droplet creation, and gravure and flexographic printing require excellent transfer. Both require proper viscosity. This setting improves the overall print quality by reducing flaws like misting, feathering, and poor edge definition.

2. Pigment Dispersion and **Colour Stability**

Dispersants keep the pigments well distributed throughout the ink, avoiding settling and agglomeration, which can result in inconsistent colour. Vibrant, consistent colours and highresolution images are produced by stable dispersions, which are essential for printed goods' aesthetic and practical needs.

3. Surface Interaction and Wettability

Wetting agents enhance the adherence and print quality by enhancing the contact between the ink and the substrate. For high-definition prints on non-porous materials like metals and plastics, enhanced wettability is essential.

4. Durability Enhancement

The longevity of printed materials is considerably enhanced by the presence of slip and rub resistance compounds. These additives aid in maintaining print



integrity during handling and use by decreasing friction and increasing surface hardness. UV stabilizers shield printed goods from UV-induced deterioration, therefore extending their lifespan.

5. Adhesion and Blocking Resistance

Adhesion boosters make sure that the ink adheres firmly to a variety of substrates, which is important for applications that involve metal, plastic, and other difficult surfaces. Conversely, anti-blocking compounds guarantee that printed materials do not adhere to one another, preserving their quality throughout storage and transit.

Applications and Industry Impact of Additives

- 1. Packaging Printing: Prints that are long-lasting and of excellent quality are essential in the packaging sector. Printing ink additives make package materials more aesthetically pleasing and long-lasting, protecting businesses' reputations and keeping product information readable.
- 2. Commercial Printing: Additives support consistent outcomes in commercial printing, where high throughput and quality are essential. They increase the potential for imaginative designs and applications by enabling the use of diverse substrates and printing techniques.
- **3. Textile Printing:** Additives improve prints' resilience to washing and fading in textile printing. This guarantees that designs maintain their colour and integrity through several washings, satisfying customer demands for dependability and quality.

4. Industrial Applications: Durable inks are necessary for industrial printing applications including circuit boards and automotive parts. In these situations, additives that increase adhesion, chemical resistance, and durability are essential for guaranteeing the long-term functionality and aesthetic appeal of printed components.

Future Trends and Innovations

To stand out in the continuously changing printing industry, companies need to achieve exceptional print quality. It is important to invest in state-of-the-art equipment and high-quality inks, but it is equally important to recognize the critical function additives like retarders, hardeners, and thinners play. These additives are the unsung heroes of every vibrant print; they guarantee the best possible performance, longevity, and efficacy over a wide range of printing techniques. Fundamentally, the use of additives such as levelling agents, retarders, hardeners, and thinners is critical to improving print quality and performance in various printing processes. Printers can improve print results and get a competitive advantage in the market by understanding their functions and using them wisely.

The creation of more sustainable and greener alternatives will determine the direction of printing ink additives in the future. The hunt is still on finding non-toxic, biodegradable chemicals that don't affect performance. Furthermore, as digital printing technologies advance, new additives are needed to improve the qualities of digital inks, like faster drying and better jetting performance.

1. Smart and Functional Additives

The development of intelligent additives like thermochromic and photochromic agents is creating new opportunities for printed goods that can be interactive and functional. These additives enhance the functional applications of printed materials by responding to changes in the surrounding environment and introducing an element of interactivity.

2. Nanotechnology

With its ability to produce ultrafine particles that improve optical characteristics, increase dispersion, and add new functions, nanotechnology has the potential to completely transform printing ink additives. Additives based on nanoparticles have the potential to revolutionize special effects, durability, and print quality.

Conclusions

Modern printing technology is not possible without printing ink additives, which improve the practical and visual qualities of inks. Future problems and demands in the printing industry will be met in large part by the development of novel and ecologically friendly additives. Printing ink additives will continue to enable the creation of superior, long-lasting, and adaptable printed materials via continued study and technical developments. Every ink producer takes tremendous effort and time while producing their printing inks. Though it is challenging to create a single ink that can function on all presses and all substrates, these inks are balanced to operate well in a range of situations. Selecting the ideal printing ink chemicals is crucial to obtain your formulation goals: the right colour, finish, durability, and printing substrate.



In a significant stride toward redefining print room efficiency and enhancing workflow automation, Konica Minolta Business Solutions India announced the launch of 15 new models in the bizhub i-Series at their Annual Strategic Partner Conference 2024 held on April 29, 2024, in Kochi. The new line of multifunction printers (MFPs) offers advanced capabilities, designed to be both intelligently productive for modern workplaces and environmentally friendly.

ethinking print room efficiency and spearheading workflow automation. Konica Minolta Business Solutions India, unveiled 15 new modesl of MFPs in India. Themed 'Powering Growth,' mirroring the successful theme of the preceding year, the Annual Strategic Partner Conference 2024, held in Kochi, served as a strategic platform for all

Konica Minolta partners nationwide to convene, deliberate on industry trends, and chart a collective vision for the organisation's future. Central to the event was the introduction of the bizhub i-Series, comprising seven A3 and eight A4 colour and black and white devices, crafted to meet diverse office needs and print-for-pay services.

Model Specifications:

- A3 Colour Models: bizhub C251i, C301i, C361i, C451i
- A3 Black and White Models: bizhub 301i, 361i, 451i
- A4 Colour Models: bizhub C3301i, C3321i, C3351i, C4001i, C4051i
- A4 Black and White Models: bizhub 4051i, bizhub 4701i, bizhub 4751i



Konica Minolta brings the next generation of bizhub i-Series MFPs in India





Offering high-speed printing, advanced security, and cloud integration, streamlining complex workflows efficiently, the bizhub i-Series will empower small-scale enterprises, small print shops and large corporations equally.



Katsuhisa Asari,

Managing Director, Konica Minolta Business Solutions India These devices are engineered for optimal performance with features like advanced security including virus protection, threat detection, and optional BitDefender anti-virus to safeguard against unauthorized access and ensure data integrity.

Advanced Features and User Experience:

The bizhub i-Series boasts a quad-core CPU, up to 8GB memory, and up to 256GB SSD, ensuring quick response times and superior performance. Enhancements in user experience include a drag-and-drop interface, pre-loaded apps, simplified login options through Microsoft Azure or Google Workspace, and an advanced media sensor for automatic paper type detection. This facilitates a tailored and efficient workflow, crucial for the demands of modern business environments.

Cloud Integration and Accessibility:

Ready for cloud connectivity, the bizhub i-Series supports integration with popular applications like OneDrive, Google Drive, and Microsoft Teams. It offers functionalities for direct printing and scanning from the MFP panel, alongside features for remote management and predictive maintenance. The design also focuses on universal accessibility, with intuitive color coding, easily accessible trays and cartridges, and an adjustable touchscreen.

Sustainability Commitment:

Konica Minolta continues its commitment to sustainability with the bizhub i-Series. Features include minimal power consumption, the eco-friendly Simitri V toner, quieter operation, and extensive use of recycled plastics, highlighting the company's dedication to reducing environmental impact.

With the launch of the bizhub i-Series, Konica Minolta not only strengthens its product portfolio but also reinforces its position as a leader in technology-driven printing solutions. This launch marks a significant milestone in meeting the evolving needs of businesses in India, blending advanced technology with robust security measures and a strong environmental ethos.

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FINANCIAL MISMANAGEMENT is the result of an erroneous belief that finance management happens only in the finance department.

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Dr Lamba's training programmes are held internationally, with a client list exceeding 2000 large and medium-sized corporations spread across several countries including India, the USA, and in Europe, the Middle-East and the Far-East.

His books, 'Romancing the Balance Sheet', 'Eye on he Bottom Line', 'Flirting with Stocks' and 'Financial Affairs of the Common Man' are making waves.



India's Paper Industry Poised for Growth in 2025

Resilience in Domestic Markets Boosts Confidence Amid Global Challenges

India's paper industry is on the cusp of experiencing significant growth in the fiscal year 2025, as stated by M. K. Goyal, Secretary General of the Indian Pulp and Paper Technical Association (IPPTA). Despite potential global disruptions in demand and supply, the strong foundation of the domestic market is expected to drive this growth.

he Indian paper industry, which boasts an impressive size of approximately Rs. 80,000 crore, currently produces over 25 million tonnes of paper annually. The industry has seen robust growth during the first half of the current fiscal year, though it faced challenges in the latter half due to declining global demand which led to substantial price corrections.

According to Goyal, paper prices have seen reductions up to 30% from six months earlier, influenced by a European economic glut and softer global market demands. This adjustment impacted various paper products, including writing and printing paper, graph paper, and packaging boards.

Despite these global market fluctuations, the demand within India remains largely stable. Some segments, such as packaging boards used for exporting highend medicines, have seen a slight downturn but are showing signs of recovery. The kraft paper segment is also feeling the impact due to reduced export demands.

Looking ahead to FY25, Goyal remains optimistic but cautious, acknowledging that a global economic downturn could affect those segments of the industry that rely heavily on exports, albeit potentially only minimally.

The IPPTA is advocating for sustainable growth within the industry. It encourages firms to adopt renewable energy sources,



Kev Points

- Projected Growth: FY25
 expected to be a strong year
 for the paper industry, driven
 by robust domestic demand.
- Market Dynamics: Recent price corrections due to soft global demand, with recovery on the horizon.
- Sustainability Focus: IPPTA urges industry-wide adoption of sustainable practices to ensure long-term viability.

implement energy-efficient technologies, conduct energy audits, set targets for carbon reduction, and invest in research and development. These initiatives aim to secure the industry's future, focusing on energy conservation and environmental sustainability.

This article is based on insights from M. K. Goyal, as reported by Mithun Dasgupta for The Hindu BusinessLine.

HP Sets New Industry Standard in Digital Printing

Latest Indigo Models Deliver Unprecedented Productivity and Improve Economics



HP Inc. introduced an array of advanced digital printing presses and intelligent solutions, marking a new era for the printing industry. This launch is a pivotal moment for commercial printing and labels and packaging sectors, addressing modern production challenges such as inflation, labour shortages, material scarcity, and environmental concerns.

P's latest offerings include the HP Indigo 120K Digital Press, known for its best-inclass productivity, and the HP Indigo 18K Digital Press, which handles an unprecedented range of print

applications with a single B2 digital press. Additionally, the HP Indigo 7K Secure Digital Press introduces an innovative approach to digital security printing, setting a new industry standard for end-to-end automation

using artificial intelligence and robotics.

Haim Levit, SVP and Division President of HP Industrial Print, emphasized, "Our commitment and significant investment into

HP's Innovations at a Glance

- New Presses: HP Indigo 120K and 18K for high-volume and versatile digital printing.
- Security Printing: HP Indigo 7K Secure Digital Press for advanced security features.
- Automation: Industryleading automation with AI and robotics to enhance productivity and sustainability.







We are committed to unlocking profitable and sustainable growth for our customers through innovation in digital printing technologies that set new benchmarks in productivity, efficiency, and environmental stewardship.



- Haim Levit,

SVP and Division President, HP Industrial Print.

continuous innovation have enabled over 8,000 printers and converters to expand their businesses and grow sustainably."

Addressing High-Volume Production Challenges

The HP Indigo 120K Digital Press is designed to set new standards for high-volume production and automation. It allows for more intuitive and economical job transfers from analog to digital, meeting stringent customer demands. This press combines analog and digital technologies to optimize production floors, significantly reducing human touchpoints and supporting sustainability goals with an ECO mode that reduces the press' carbon footprint by 11%.

Expanding Capabilities and Enhancing Security

The HP Indigo 18K Digital Press enhances versatility, efficiency, and user-friendliness, critical as the commercial printing sector undergoes significant transformation. This press boasts advanced AI features that streamline the entire production process, ensuring up to 80% press availability within a single shift.

Meanwhile, the HP Indigo 7K Secure Digital Press revolutionizes restricted digital security printing by executing security-focused print jobs in a single pass, diversifying offerings and catering to comprehensive security needs.

Intelligent Factory Floors and Sustainable Practices

HP is redefining industry standards for automation through AI and robotics, launching a comprehensive print production automation ecosystem. This initiative helps customers achieve higher volumes and more jobs per press through automated processes, significantly enhancing productivity and reducing operational inefficiencies.

The latest suite of products from HP not only addresses the immediate needs of today's printing businesses but also sets the path for future innovations that continue to push the boundaries of what's possible in digital printing.



The Poona Press Owners' Association (PPOA) recently hosted an enlightening session titled 'Know Your Cost, Find a Perfect Price,' captivating an audience of print industry professionals. Held on May 23, this event showcased the invaluable insights of CA Uday Dhote, a seasoned expert in the printing press sector with three decades of experience. The session, attended by various press organization representatives from Pune, emphasized the pivotal role of cost accounting in enhancing business management and profitability.

ost accounting, a crucial aspect of managerial accounting, serves as the backbone for decision-making, cost control, and performance evaluation within the business environment. It provides detailed analysis and accurate information regarding the cost of production and operations, enabling businesses to optimize their resources, enhance profitability, and maintain competitive advantage.

The Importance of Costing in **Printing**

CA Uday Dhote articulated the significance of understanding cost structures unique to each organization. "No two organizations have the same cost structure. It is important to determine costs while making estimates. Incorrect estimates affect profits. Controlling costs and recovery is important," Dhote emphasized, illustrating the critical nature of precise costing and estimation in maintaining profitability.

During the session, Dhote differentiated between 'costing' and 'estimation,' explaining that costing is an analysis of past expenditures, whereas estimation forecasts future costs. He also covered various types of costs, including Direct Materials, Direct Expenses, and Indirect Expenses, and discussed the strategic role of cost centers in accounting.

These centers help in tracking costs and understanding cost drivers, which are essential for evaluating financial health and operational success.

Understanding Cost Centers

CA Uday Dhote introduced the concept of cost centers in a business, which can be personal, operational, product, process service, and service centers. He explained how these centers function within an organization, using Tally ERP/ PRIME to illustrate the allocation of expenses and revenue generation. This system helps businesses see not just the bottom line but also who and what contributes to profits or losses.





Poona Press Owners' Association Convenes Key Session

The Poona Press Owners' Association (PPOA) recently hosted a pivotal session on cost accouting, attended by its President Rahul Marulkar, Secretary Tirtharaj Joshi, committee members, and distinguished guests. The session, led by CA Uday Dhote, delved into critical topics such as cost management and GST implications in the printing industry. This gathering not only provided deep insights into financial strategies but also reinforced the PPOA's commitment to continuous learning and industry advancement.















Key Takeaways:

- Understanding Costs: Deep dive into the costs involved in printing processes.
- Costing vs. Estimating: Distinctions and significance for financial planning.
- Customized Cost Centers: Implementation and benefits in tracking financial activities.
- Apportionment of Costs: Strategies for effective cost allocation.
- Activity-Based Costing: Fixing costs departmentally and activity-wise.
- Cost-Centric Profit and Loss Account: Tools for creating and interpreting detailed financial statements.

GST Implications for the Printing Industry

The later part of the session included a comprehensive discussion on the recent changes in GST rates applicable to the printing industry. Dhote explained the distinction between printed products and printing services under the GST framework, including the challenges and ongoing dialogues with authorities to address taxation issues in the sector.

Cost Centre Overview for Printing Business

Understanding Profit & Loss (P&L):

- Account Heads: Regular P&L accounts show various heads of accounts and the final profit or loss figure.
- Contributors to Profit: Traditional P&L statements do not reveal which departments contributed to the profit or who was responsible for

Implementation of Cost-Centres & Revenue-Centres:

• Software Utilization: Uses Tally ERP/PRIME to manage financials in the background.

• Expense Management:

- When debiting an expense or provisioning, the system prompts identification of associated revenue centres
- Revenue Tracking: Entering sales information prompts allocation to respective revenue centres.

Departmental Roles:

- Revenue Earning Departments: Creative (CRV), Plates (CTP), Offset (OFF), Digital (DIGI), Finishing & Dispatch (F&D).
- Non-Revenue Departments: Accounts (ACCTs), Admin (ADMIN), Management (MGMT), and Sales & Marketing (S&M).

Naming Cost Centres:

• Effective Recall: Cost centre names should start with the ledger account name, followed by the associated department or activity for easy recall.

Performance Measurement:

• Financial Contribution: Success is measured by the ability to match Net Profit (N.P) from the P&L with the sum of net revenues/expenses from the departments outlined.



24 August 2024 Save the Date

Attention all members of the Poona Press Owners' Association and the vibrant Pune printing press community!

Get ready to mark your calendars for a transformative experience at ADOPTECH 2024. This one-day event promises to be a treasury of knowledge and an electrifying dose of motivation directly from the esteemed leaders of our industry.

Join us to connect, collaborate, and create new pathways to success, as we gather to share insights that will shape the future of printing technology.

Prepare to lead the change in the printing press landscape. Stay tuned — watch out for more details coming your way!

#ADOPTECH2024 #PrintingPressInnovation #PPOAEmpowerment

July

Birthday Greetings!!

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- **Tolbande Rajesh Ramakant** Nirmiti Creation and Services
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- Dr. Datey Ganesh Madhav Ganesh Offset Pvt. Ltd.
- **Zawar Abhishek Pravin Neeal Enterprises**
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