

UNDER THE MOTTO "FUTURE UP YOUR FACTORY" DYEMANSION IS PRESENTING INNOVATIONS THAT STRENGTHEN THEIR POSITION AS A TRANSFORMATION LEADER IN ADDITIVE MANUFACTURING AT FORMNEXT 2022



- DyeMansion launches new product Powerfuse S PP: the first ever green and highly industrial system to vapor polish 3D-printed polypropylene
- With the DyeMansion 360° Digital Services, the post-processing leader introduces their first ever IIoT solution, direct machine connection & remote service - further pushing the transformation towards connected production lines of tomorrow
- Nexa3D and DyeMansion announce a strategic partnership to automate end-to-end Additive Manufacturing workflows and accelerate high-throughput production
- *HP, Lubrizol and BASF have each qualified & validated new materials for the leading post-processing platform from DyeMansion enabling new application possibilities*



15.11.2022 (Munich) - "After seven years in business, developing workflow solutions for our customers, I'm thrilled to see that the factory of the future is becoming reality - also thanks to our latest products. Together with our customers and partners we are building different factories for high-volume applications around the world. At Formnext, we show how everyone can implement our solutions in their own factory. Connectivity, automation, and reproducible quality are the prerequisites to successfully future up your factory", says Felix Ewald, CEO & Co-Founder of <u>DyeMansion</u>.

PRODUCT LAUNCH POWERFUSE S PP FIRST EVER GREEN & HIGHLY INDUSTRIAL SOLUTION TO SMOOTH 3D-PRINTED PP

At Formnext, DyeMansion delivers on their announcements and launches a new Powerfuse S model to smooth 3D-printed polypropylene. The Powerfuse S PP is the first ever green vapor polishing solution for highly industrial manufacturing and surface improvements beyond aesthetics to smooth 3D-printed PP. The classic Powerfuse S model works with all common rigid and flexible materials on the market such as PA, TPU, ULTEM and more. The new Powerfuse S PP is dedicated for the processing of for polypropylene.

This new machine enables more application possibilities with the use of polypropylene in Additive Manufacturing industries such as automotive, medical & chemical tech, consumer goods & prototyping. The sustainable VaporFuse VF44 EcoFluid PP is 100% bio-based and readily biodegradable as well as non-toxic: no PFAS, non-CMR, non-vPvM/PMT. Furthermore, AM users can enjoy unbeatable cost per part at full production capacity with the Powerfuse S PP due to the high degree of automation and closed loop circulation with integrated solvent recovery.

Polypropylene is one of the most widely produced plastic globally with advantages due to price, toughness and ductility, as well as chemical resistance. With their new Powerfuse S model, DyeMansion ensures that there is an end-to-end solution for the industrial processing of polypropylene and positions themselves as the go-tomarket partner for PP in AM - a big step towards the transformation of AM.





DyeMansion's new Powerfuse S PP enables the industrial processing of polypropylene and highly functional applications. | Photo credit: DyeMansion

DyeMansion's solution has been validated together with all technology providers for PP already, including Stratasys, HP, BASF, EOS, ALM, Prodways, AM Polymers, Covestro and more. Experience the machine and samples from all different PP's at booth D51 in hall 11.1.

INTRODUCING DYEMANSION 360° DIGITAL SERVICES TO MONITOR, CONNECT AND INTEGRATE THEIR POST-PROCESSING TECH

DyeMansion announces their first ever digital product family, the DyeMansion 360° Digital Services. This includes the DyeMansion Workflow Center, DyeMansion Data Connect and DyeMansion Remote Service. The DyeMansion team drives the connected production lines of tomorrow and once again proves itself as one of the



leading transformation partners pushing a more digital way of manufacturing, which includes state-of-the-art industrial IoT technology.

The DyeMansion Workflow Center is a cloud- and browser-based web application. DyeMansion has selected Siemens MindSphere as a framework to create their product. It offers live monitoring, custom alerts and run history which is ready to use right away through plug and play. Customers can monitor and analyze their own workflow, allowing for a lot more productivity, automated traceability, increased uptime and flexibility.



The DyeMansion Workflow Center, as part of the digital product family DyeMansion 360° | Photo credit: DyeMansion

DyeMansion Data Connect provides on-site machine and process data for MES/ERP systems, which means that no customer data leaves the premises. Customers benefit from simplified integration, a complete data set, high compatibility and flexibility.

The DyeMansion Remote Service enables maximum uptime through direct troubleshooting, more efficient collaboration through targeted support and reduced resources with a fast and efficient remote service.



The new DyeMansion 360° Digital Services can be experienced at Formnext including a live demo of the DyeMansion Workflow Center. FKM, alphacam and Siemens, as leading players in the international AM market, are DyeMansion's pilot partners for this purpose. The Powerfuse S, the Powershot Performance and the DM60 will be available with IIoT capabilities starting from Q2 2023. Existing systems will have the ability to be easily retrofitted as well.

DyeMansion is joining the CO-AM software platform from Materialise to advance serial AM production as a post-processing partner. The DyeMansion Print-to-Product workflow can be seamlessly accessed on CO-AM with a standardized OPC-UA interface. A first demo can be experienced on the Materialise booth 12.1, C139 at Formnext.

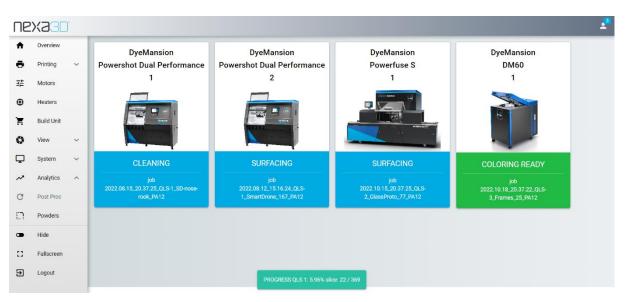
PARTNERSHIP ANNOUNCEMENT WITH NEXA3D TO AUTOMATE END-TO-END ADDITIVE MANUFACTURING WORKFLOWS & ACCELERATE HIGH-THROUGHPUT PRODUCTION

DyeMansion and <u>Nexa3D</u>, the maker of ultrafast professional and industrial polymer 3D-printers, announce a strategic partnership to automate end-to-end Additive Manufacturing workflows – from printing to finished parts. This partnership will leverage DyeMansion's automated post-processing hardware, the high-throughput capabilities of Nexa3D's QLS 820 printer, as well as the printer's Siemens PLC integration and powerful NexaX for QLS manufacturing software.

"Nexa3D is driving innovation to digitize the supply chain sustainably by making the world's fastest polymer 3D printers affordable for professionals and businesses of all sizes," says Kevin McAlea, COO of Nexa3D. "It's only natural that we would partner with DyeMansion, the leading provider of automated post-processing solutions for powder bed fusion, to ensure that our industrial customers can leverage high-throughput manufacturing capabilities from end-to-end as well as reduce their total cost of operation."



This strategic partnership will help users access best-in-class automation capabilities to reduce manufacturing costs and deliver accessibility and transparency at every stage of the process so they can easily manage productivity and product quality.



DyeMansion's post-processing systems are integrated into Nexa3D's software solution.

PARTNERSHIP ANNOUNCEMENT WITH HP

TO OFFER CONNECTED POST-PROCESSING WORKFLOWS FOR FINISHING AND COLORING WHITE PARTS PRODUCED WITH THE NEW HP SOLUTION

Specific to the new HP Jet Fusion 5420W, HP is working closely with postprocessing tech company DyeMansion to offer connected post-processing workflows for finishing and coloring white parts produced with the new HP solution. DyeMansion is providing a wide range of vibrant colors with high color consistency, and different finishes depending on application needs. At Formnext, the companies will showcase a variety of final parts to highlight the available surface finishing and coloring capabilities.

"As an experienced MJF part provider, we are excited on the new possibilities that



can be achieved with white MJF parts enabled by HP 3D HR PA 12 W material. We see a huge potential, especially within the healthcare segment, to increase customer satisfaction with very good detail resolution and the new coloring and surface options, provided through systems from DyeMansion, that this new material brings to the market", says Henrik Lundell, Senior Business Development of <u>Prototal</u>.



Application from Invent Medical, produced with the new HP Jet Fusion 5420W and finished with DyeMansion's Powerfuse S and DM60 in the 2 new colors Peony Pink and Eivissa Blue. | Photo credit: DyeMansion

MORE ALLIANCES, MATERIAL VALIDATIONS & UPDATES TO DRIVE THE TRANSFORMATION OF MANUFACTURING TOWARDS ADDITIVE

Since Formnext 2021, DyeMansion has gained 12 new Sales Partners and 9 new Production Partners. This brings the total number of partners up to 85. Considering this, DyeMansion's global Partner Platform stays the most impactful AM network in



powder-bed with the goal to enable the worldwide availability of high-value end-use applications. <u>Here</u> you can find all partners at a glance.

Together with their new partners, DyeMansion is particularly excited to be advancing the industry in new regions such as Israel with <u>3Dreams</u> and <u>Mafil</u>, Romania with <u>Nutechnologies</u>, Italy with <u>Energy Group</u>, UAE with <u>Dynagraph</u> and Japan with <u>Yokoito</u>.

Yokoito's CEO and founder, Yutaro Nakajima-san, says: "Japan is historically a country that attaches great importance to product quality. Hence in Japan, the layer lines and unstable quality in post-processing have hindered the widespread adoption of 3D printing technology for many years. DyeMansion has the core technology that solves these problems, and we believe that if the technology becomes widespread, PBF as a manufacturing technology will advance rapidly in Japan."

It is also worth highlighting that Lubrizol validated the Powerfuse S (machine) vapor polishing solution for the market to smooth their semi rigid TPU materials. The finished and already proven ESTANE® 3D M95A TPU, produced with HP Multi Jet Fusion is certified for skin sensitivity and can be dyed as well. The new ESTANE® 3D M88A, also available for HP Multi Jet Fusion is a slightly softer material which is also compatible and evaluated with the DyeMansion Print-to-Product workflow, such as depowdering, vapor polishing and coloring. Finished sample and customer parts can be experienced on the Lubrizol and DyeMansion booth.

Together with BASF, DyeMansion released a new whitepaper with the title "Optimizing Post-Processing for Ultrasint® TPUO1" focusing on depowdering, vapor polishing and dyeing of Ultrasint® TPUO1, printed on HP Multi Jet Fusion. Finished lattice parts from BASF and other material suppliers as well as the whitepaper can be experienced at the DyeMansion booth.

Additionally, Stratasys announced that its new SAF[™] PA12 powder will be provided by new materials partner ALM for the H350[®] 3D printer. The powder has been validated with the Print-to-Product workflow and can be used as a market ready solution for AM users. Parts can be experienced at both booths.



ABOUT DYEMANSION

DyeMansion is the global leader in post-processing solutions for industrial polymer 3D-printing that turns 3D-printed raw parts into high-value products. From perfect fit eyewear to personalized car interiors, their technology makes 3D-printed products become a part of our everyday life. Starting in 2015 with the first industrial coloring solution for powder bed fusion parts, the Munich-based company extended its portfolio with advanced part cleaning and surfacing solutions for a wider range of 3D-printing technologies in the field of plastics. Today, DyeMansion's Print-to-Product workflow combines industry-leading hardware with the widest range of color and surfacing options on the market. Their systems are applicable for Industry 4.0 and can be integrated seamlessly into various production processes. The ability to provide a flexible solution for both small batches and high volumes makes DyeMansion a trusted partner for future factories. Through close collaboration with customers across all industries, the 3D-finishing technology and expertise continuously grow with the market. Reduced cost per part, unmatched quality, and high sustainability are core values that drive each innovation of the fast-growing company. In addition to these principles, finding the right finish for every application is what drives them.

Learn more about DyeMansion and visit <u>www.dyemansion.com, LinkedIn,</u> <u>Instagram, Twitter</u> or <u>YouTube</u>.

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