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Press Release

BigRep Launches ABS & ASA Advanced Materials: Opening a New Dimension for Large-Format 3D-Printing in the Automotive & Consumer Products Industries.

BigRep is expanding its materials portfolio with versatile & impact-resistant ABS and weather- & UV-resistant ASA: Cost-efficient and sustainable, engineering-grade filaments, providing digital solutions empowering production.

Berlin, May 12, 2020 – BigRep, the global leader in large-format additive manufacturing (AM) technology and solutions, introduces **ABS** and **ASA**, two new BigRep certified, engineering-grade materials, especially designed for applications in the automotive industry, and for consumer products such as outdoor or sports applications. Both materials are designed for high-performance results using BigRep's next generation **STUDIO G2** and **PRO** (ACE) 3D printers.

"With these two new engineering-grade materials, customers will now be able to use industry-standard ABS and ASA materials in large-format 3D printing, taking full advantage of our 3D printers' speed, precision and quality," said **BigRep Managing Director, Martin Back**. "Our customer- and applications-focused development of AM systems and materials, combined with our deep understanding of the entire industrial value chain, pill be pivotal in the continued evolution of our digital solutions empowering production."

Following BigRep's mission to provide cost-effective and environmental-friendly engineering-grade materials to large-format AM, the launch also marks a new level of the company's quality R&D process: BigRep is following a customer- and applications-focused approach, working closely with industrial partners to address specific material requirements for advanced processes.

Both versatile and impact-resistant, BigRep's new **ABS** (Acrylonitrile Butadiene Styrene) is perfectly suited for mobility applications and a variety of end-use consumer appliances. Based on tried and tested FFF materials used in automotive manufacturing, BigRep ABS has been optimized for large-format industrial AM. Thanks to its special mechanical properties, high temperature- and warping-resistance, ABS is the perfect material for printing complex, ready-to-use parts, including end-use, factory tooling and functional prototypes with demanding geometries.

Weather- and UV-resistant, BigRep's new **ASA** (Acrylonitrile Styrene Acrylate) material is a robust, engineering-grade filament with high mechanical resistance, low shrinkage and superior layer adhesion, while also showing a greater heat resistance than even ABS. An easy to work with material, ASA has excellent post-processing qualities offering great natural aesthetics that enable a stylish matte finish and will not show age or fade in color with prolonged UV exposure, making it the perfect choice for industrial or automotive end-use parts.

Demonstrating the materials' effectiveness and advantages for automotive applications, BigRep presented two showcase parts. A set of side mirrors printed with ASA confirming the uniquely weather- and UV-resistant qualities of the material, and an engine cover from ABS to showcase the materials high heat- and warping-resistance.

ABS/ASA present some real added value to AM – both can be chemically affixed to themselves or similar plastics, for example. ABS is a lightweight (1.08g/cm³) material also suitable for injection molding and extrusion, making it a key element in AM. Last but not least, both ABS/ASA are laid out for easy post-processing using standard machining techniques; they can be easily cut with standard shop tools and line-bent with standard heat strips.

About BigRep

BigRep develops the world's largest serial production 3D printers, creating the industry benchmark for

large-format printing with the aim to reshape manufacturing. Its award-winning, German-engineered machines are establishing new standards in speed, reliability and efficiency. BigRep's printers are the preferred choice of engineers, designers and manufacturers at leading companies in the industrial, automotive and aerospace sectors. Through collaborations with its strategic partners – including Bosch Rexroth, Etihad Airways and Deutsche Bahn – and key investors – including BASF, Koehler, Klöckner and Körber – BigRep continues to develop complete solutions for integrated additive manufacturing systems, as well as a wide range of printing materials on an open-choice source. Founded in 2014, BigRep is headquartered in Berlin with offices in Boston and Singapore. Leading the way in one of the world's key technologies, our multinational engineering teams are highly trained, interdisciplinary and customer focused.

For more information, please contact:

Juergen Scheunemann
PR & Communications BigRep GmbH
T: +49 30 9487 1430 E: bigrep@berlinpr.de

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