

Press Release



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Covestro's polycarbonate proves suitable for mass production using 3D printing

Covestro provides Signify with polycarbonate for 3D-printed luminaires for a circular economy

- **Signify makes high-quality, energy-efficient LED lighting products**
- **Company also prints light shades and fittings in the Netherlands using additive manufacturing**
- **New facilities planned in the USA, India and Indonesia**
- **100 percent recyclable polycarbonate supports a circular economy**

[Covestro](#) is providing [Signify](#), the world leader in lighting, with polycarbonate for its capabilities for 3D printing. Signify is expanding its printing capabilities in the Netherlands and plans to establish new facilities in the USA, India and Indonesia. The company has perfected 3D printing as a highly flexible and more sustainable form of manufacturing luminaires.

Signify chose for polycarbonate from Covestro, as it fulfills customer requirements like high impact and heat resistance, design freedom, transparency and flame-retardance, which allows luminaires to be quickly designed and tailored to customers' exact needs. Not least it is 100 percent recyclable, supporting the concept of a circular economy.

"We are the first lighting manufacturer to produce 3D-printed luminaires on an industrial scale. This reinforces our position at the forefront of lighting and sustainable innovation," said Coen Liedenbaum, Venture Manager 3D Printing at Signify. "Customers are able to bring their ideas to life in a matter of days rather than months, and printing uses less energy." The [company](#) announced that it was providing printed luminaires to multiple major retailers.



Successful upscaling

“Covestro offers a comprehensive range of polymeric materials for all common 3D printing methods, including polycarbonate raw materials for this promising application,” explained Patrick Rosso, Global Head of Additive Manufacturing. “By partnering with companies like Signify, we are pushing existing scale boundaries and supporting various industries along the value chain on their way to digital mass production.”

Covestro is currently researching [materials](#) to enable an extended range of industrial applications. To this end, the company is upgrading laboratories for 3D printing at its Leverkusen, Pittsburgh and Shanghai sites, where it develops and tests material solutions for serial additive manufacturing in collaboration with different customers. At the forthcoming [Formnext](#) trade fair from 19-22 November 2019, Covestro will be showcasing a number of current developments for 3D printing at its Booth E11 in Hall 12.1.

Signify’s investment further illustrates the company’s commitment to better serving its customers while reducing their, and its own, carbon footprint. The company’s 3D-printed luminaires are designed for a circular economy as nearly every component may be reused or recycled.

Strategic program to promote circular economy

Covestro regards the circular economy as a key topic and has launched a long-term strategy programme for this purpose. “Our company wants to shape the transition from a disposable economy to a circular economy with as many partners as possible,” said Rainer Rettig, Head of the Circular Economy program at Covestro. “To this end, we already provide our customers with tailor-made products today. This project is a wonderful example for this.”

“Our finished luminaires have a 47 percent lower carbon footprint than traditionally built metal luminaires,” added Coen Liedenbaum. “They also weigh less, which allows us to reduce the carbon footprint in shipping by 35 percent. And by keeping production locally we reduce the footprint even further.” Signify plans to integrate energy-efficient LED lights into its luminaires at all existing and new production sites.

About Covestro:

With 2018 sales of EUR 14.6 billion, Covestro is among the world’s largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and



employs approximately 16,800 people (calculated as full-time equivalents) at the end of 2018.

About Signify:

[Signify](#) (Euronext: LIGHT) is the world leader in lighting for professionals and consumers and lighting for the Internet of Things. Our [Philips](#) products, [Interact](#) connected lighting systems and data-enabled services deliver business value and transform life in homes, buildings and public spaces. With 2018 sales of EUR 6.4 billion, we have approximately 27,000 employees and are present in over 70 countries. We unlock the extraordinary potential of light for brighter lives and a better world. We have been named [Industry Leader](#) in the Dow Jones Sustainability Index for three years in a row. News from Signify is located at the [Newsroom](#), [Twitter](#), [LinkedIn](#) and [Instagram](#). Information for investors can be found on the [Investor Relations](#) pages.

This press release is available for download from the Covestro press server at www.covestro.com. Photos are available there for download as well. Please acknowledge the source of any pictures used.

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