All-around view of 3D image objects that appear to float in space

**Photopolymer film for next-generation AR displays**

**Bayfol**® **HX is used in Sony’s prototype 360-degree holographic display**

The Bayfol® HX photopolymer film of [Covestro](https://www.covestro.com) helps the R&D of Sony Group Corporation to realize the prototype of a transparent display. This display delivers novel and fascinating visual experiences, as the images holographically generated within it appear to float freely in a transparent cylindrical column. Viewers can walk around the 360-degree display and look at the displayed image from all angles. Since the holographically evoked image is very bright – but the display is transparent at the same time – the image and background merge almost seamlessly. In the spirit of an augmented reality (AR) system, this transparent 360° holographic display expands reality. Because whatever is displayed in it seems to actually be there for the observer. Covestro is presenting this application of Bayfol® HX at the [K 2022](https://www.solutions.covestro.com/en/digital-event-space/kfair) plastics trade fair, which will be held in Düsseldorf from October 19 to 26.

Bayfol® HX consists of a transparent film as a substrate and a photoreactive layer that is optimized for the specific customer requirements. Bayfol® HX gives designers the greatest possible design freedom. For example, it is flexible enough to be bent – as in the Sony application – so that it can completely enclose a cylinder. It has tailor-made optical properties to produce high-quality holographic images. Both the very high transparency of the photopolymer film and the image brightness it enables were key factors in Sony's decision to use Bayfol® HX for its development project.

"We spent a long time looking for the right material to realize our idea," said Sony's Yutaka Imai. The R&D General manager continues, "The project showed that Bayfol® HX has excellent performance for AR applications." It is imaginable that the prototype display technology will be used, for example, in museum showrooms and corporate presentation rooms – or in the home, for example, to accompany music with 360-degree videos.

"We are pleased that digital image information can now be presented floating in space rather than just presented in a frame, as it were, thanks to Bayfol® HX and Sony's innovative screen concept. In addition to automotive head-up displays (HUD) and head-mounted displays (HMD), this is another extremely promising AR application for our holographic films," says Yuen-Ling Lok, Head of Commercial Operations Holographic Lightguiding at Covestro.

**About Covestro:**

Covestro is one of the world’s leading manufacturers of high-quality polymer materials and their components. With its innovative products, processes and methods, the company helps enhance sustainability and the quality of life in many areas. Covestro supplies customers around the world in key industries such as mobility, building and living, as well as the electrical and electronics sector. In addition, polymers from Covestro are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself.

The company is committed to becoming fully circular and aims to become climate neutral by 2035 (scope 1 and 2). Covestro generated sales of around EUR 15.9 billion in fiscal 2021. At the end of 2021, the company had 50 production sites worldwide and employed approximately 17,900 people (calculated as full-time equivalents).

**Forward-looking statements**

This news release may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Covestro’s public reports which are available at www.covestro.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.