

May 13, 2020

Mainz, Germany

The most flexible ultra-thin glass for foldable displays and flip phones: SCHOTT introduces Xensation® Flex – the foldable glass revolution

- New Xensation® Flex is ultra-thin glass (UTG) that is flexible enough to bend around one's finger after processing and available in mass production.
- SCHOTT – a leading global UTG powerhouse since the 1990s – offers the industry's most flexible glass, with a bending radius lower than 2 mm and thicknesses less than a human hair after processing.
- Besides its outstanding flexibility, Xensation® Flex can be chemically toughened. This makes it a suitable material for flip phones, which require both flexible and strong displays. The high-transparency of Xensation® Flex makes it a premium option to create high-end user experience.



SCHOTT, the inventor of specialty glass, is pushing the boundaries of human imagination with its flexible glass line-up. The international technology group now introduces Xensation® Flex, the most flexible ultra-thin glass that is available in mass production. The new flexible cover glass product line-up offers breathtaking bending radii below 2 mm after processing and is an addition to the company's Xensation® high-performance glass portfolio.

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Mainz, Germany, May 13, 2020 – Before there were smartphones, there were flip phones, a legendary design concept that made the cell phone a must have device. Now, Samsung's impressive Galaxy Z Flip has brought flexible displays to the smartphone universe, successfully revitalizing the flip phone concept for the mobile era. As premium phone makers are constantly searching for the best components – including display materials – a flexible glass offers outstanding characteristics in regards to a premium appeal.

Dr. Feng He, Head of Global Product Mgmt. and Application of SCHOTT UTG Product: “We are supplying ultra-thin glass to Samsung now. Our customers trust in our technology and production capabilities for such high tech products. To keep this trust, we continuously improve and strengthen our ultra-thin glass offering. The official market launch of the Xensation® Flex highlights our efforts in this very demanding technology development.”

With Xensation® Flex, SCHOTT is now introducing the most flexible ultra-thin glass that offers high transparency and the ability to be chemically toughened. SCHOTT sustainably produces high quality glass in Germany and then shipped to processors for further processing.

Xensation® Flex: When glass becomes ULTRA

Xensation® Flex offers UTG in thicknesses less than a human hair. After processing, its bending radius below 2 millimeters makes it suitable for applications in foldable displays and paves the way for unprecedented device designs – e.g. foldable smartphones, laptops, tablets or completely new product groups.

Xensation® Flex is based on experience of more than 30 years in researching and producing a wide variety of UTG, tailor-made for several applications. SCHOTT has refined the core UTG production process known as “down draw technology”. During the down-draw process, a glass ribbon is pulled down from the top, moving across various rollers and through the cooling track. Thanks to this eco-friendly technique, glass of desired thinness is directly drawn from the melt to achieve stable thinness – with no further harmful acid etching needed.

The Xensation® brand: High performance on hand

Xensation® is SCHOTT's glass answer to an ever-demanding consumer electronics industry. Initially invented as a rigid, high-performance cover glass, Xensation® Flex now proves that strength can also come with the ability to bend. The broad portfolio enables designs that have never been possible before or offer industry-leading features in set drop performance or strength.

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Xensation® Up. - SCHOTT's high-performance cover glass for rigid-display solutions - provides outstanding resistance against breakage, especially with regard to set drop performance. The lithium aluminosilicate (LAS) cover glass is built on a heritage of more than 130 years: SCHOTT was the first company to use LAS as a protective cover glass. Our founder, Otto Schott, was the first to document the addition of lithium to a glass mixture as part of his wide-ranging experiments that eventually led to the invention of specialty glass. LAS now provides improved strength, flexibility, and reliability for global partners.



Xensation® Up. has enabled new designs and innovations from clients, including leading smartphone manufacturers from China vivo and OPPO. vivo recently launched a series of smartphones, including NEX 3s 5G phone with a curved waterfall display, iQOO 3 5G phone, and brand new design piece X30 Pro with Alexander Wang edition and rainbow edition. OPPO just launched OPPO Smart Watch in March, 2020 with a 3D curved screen design. All of these concepts underline the market-leading capabilities of Xensation® Up. high-performance cover glass.

With deep knowledge in the smartphone market accumulated since the launch of the 1st generation in 2011, SCHOTT Xensation® is pushing the boundaries of display innovations. With Xensation® 3D, SCHOTT was the first cover glass maker worldwide to develop a protective smartphone cover based on aluminosilicate with the addition of lithium. Now with Xensation® Up. of enhanced strength and Xensation® Flex for foldable displays, SCHOTT Xensation® provides specialty glass solutions to all available display technologies with mass production capacity. With raw glass production in Germany, Xensation® is now supplying global consumer electronics markets.

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Links:

- Discover ultra-thin glass from SCHOTT at [schott.com/innovation](https://www.schott.com/innovation)
<https://www.schott.com/innovation/de/tag/ultrathinglass/>
 - SCHOTT specialty glass solutions for the mobile displays:
www.schott.com/display
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Pictures and videos

1. The Epic Flex video: https://www.youtube.com/watch?v=f7_xPwS0_Jc
 2. Bending machine video:
https://www.youtube.com/watch?v=56XkxRekY08&list=PL4pKPtynVQPelGY8LFaziRj743FH4_RXJ&index=3
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About SCHOTT

SCHOTT is a leading international technology group in the areas of specialty glass, glass-ceramics and related high-tech materials. With over 130 years of experience, the company is an innovative partner to many industries, including the home appliance, pharma, electronics, optics, life sciences, automotive and aviation industries. SCHOTT has a global presence with production sites and sales offices in 34 countries. In the 2018/2019 fiscal year, the group generated sales of EUR 2.2 billion with over 16,200 employees. SCHOTT AG has its headquarters in Mainz (Germany) and is solely owned by the Carl Zeiss Foundation. This is one of the oldest private and largest science-promoting foundations in Germany. As a foundation company, SCHOTT assumes special responsibility for its employees, society and the environment.

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