



Press Release

ZEISS Innovation against Viruses and Bacteria on Eyeglass Lenses

ZEISS DuraVision AntiVirus Platinum UV is a premium anti-reflective lens coating that deactivates viruses and bacteria on the lens's surface.¹

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This product is not available in the European Union.

News about the COVID-19 pandemic currently surrounds everyone, everywhere, all the time. For example, we've already heard that the coronavirus that causes COVID-19 is capable of surviving for many hours – even days – on surfaces,² including eyeglass lenses, and can remain viable on plastics and other materials for up to 72 hours. What does this mean for eyeglass lenses? Indeed, eyeglass lenses are thought to be contaminated with diverse microbiota due to their exposed position in the center of the human face and their close contact with human skin, nose, and mouth.³ Recent studies indicate that eyeglass lenses have significant and highly diverse bacterial contamination.⁴ ZEISS DuraVision AntiVirus Platinum UV, an anti-reflective coating with antibacterial and antiviral properties, will be available for all ZEISS plastic lenses from spring 2021.

More hygienic lenses: fighting microbes with silver

The antimicrobial properties of silver have been known for centuries. For this reason, silverware has long served as a preventive measure against infections. ZEISS has now developed a process to incorporate antimicrobial silver invisibly but effectively into the anti-reflective coating package. The precious metal (Ag⁺ ions) effectively deactivates viruses and bacteria present on the lens. Independent, accredited external test houses conducted the antimicrobial efficacy testing according to well-established test procedures, including ISO standards.⁵ "With this

¹ Tested by ISO 21702:2019(E) for enveloped viruses and tested by ISO 22196:2011(E) for Gram-negative and Gram-positive bacteria. Efficacy proven after 24 hours as defined by ISO.

² van Doremalen N., Bushmaker T., Morris D.H., Holbrook M.G., Gamble A., Williamson B.N., Tamin A., Harcourt J.L., Thornburg N.J., Gerber S.I., Lloyd-Smith J.O., de Wit E., Munster V.J. (2020). Aersol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *New England Journal of Medicine*, 382:16.

³ Fritz, B., Jenner, A., Wahl, S., Lappe, C., Zehender, A., Horn, C., Blessing, F., Kohl, M., Ziemssen, F., Egert, M. (2018). A view to a kill? – Ambient bacterial load of frames and lenses of spectacles and evaluation of different cleaning methods. *PLoS ONE* 13(11): e0207238.

⁴ Fritz B., März M., Weis S., Wahl S., Ziemssen F., Egert M. (2020). Site-specific molecular analysis of the bacteriota on worn spectacles. *Scientific Reports*, 10:5577.

ZEISS has studied the microbial content of spectacle lenses over several years in cooperation with Furtwangen University.

⁵ Tested by ISO 21702:2019(E) for enveloped viruses and tested by ISO 22196:2011(E) for Gram-negative and Gram-positive bacteria. Efficacy proven after 24 hours as defined by ISO.



coating, we reduce the presence of microbial contamination on the surface of the eyeglass lenses. As a result, the product provides some more prevention in everyday life and is a new contribution to ophthalmic lens hygiene," says Dr. Christian Lappe, Director Technical Communication at ZEISS.

ZEISS' best lens coating now offers even more benefits

"ZEISS DuraVision coatings combine anti-reflective, dirt- and dust-repellent properties, easy cleaning, and scratch resistance for long durability in a single coating package," says Volker Gahr, Senior Product Manager at ZEISS.

"DuraVision is a trademark that stands for very robust coatings for years – and this is also true for ZEISS DuraVision AntiVirus Platinum UV." In addition to the already well-known benefits and properties of the premium lens coatings, there is now the added benefit that ZEISS DuraVision AntiVirus Platinum UV reduces the risk of viruses and bacteria surviving on the lens surface.

Of course, ZEISS lenses with DuraVision AntiVirus Platinum UV offer full UV protection up to 400 nanometers. Besides, the new coating is also available for [ZEISS BlueGuard Lenses](#). Especially for those who want to benefit from the new blue light protection properties in today's technology and media usage.

DuraVision is a trademark of Carl Zeiss Vision GmbH.

About ZEISS

ZEISS is an internationally leading technology enterprise operating in the fields of optics and optoelectronics. In the previous fiscal year, the ZEISS Group generated annual revenue totaling 6.3 billion euros in its four segments Semiconductor Manufacturing Technology, Industrial Quality & Research, Medical Technology and Consumer Markets (status: 30 September 2020).

For its customers, ZEISS develops, produces and distributes highly innovative solutions for industrial metrology and quality assurance, microscopy solutions for the life sciences and materials research, and medical technology solutions for diagnostics and treatment in ophthalmology and microsurgery. The name ZEISS is also synonymous with the world's leading lithography optics, which are used by the chip industry to manufacture semiconductor components. There is global demand for trendsetting ZEISS brand products such as eyeglass lenses, camera lenses and binoculars.

With a portfolio aligned with future growth areas like digitalization, healthcare and Smart Production and a strong brand, ZEISS is shaping the future of technology and constantly advancing the world of optics and related fields with its solutions. The company's significant, sustainable investments in research and development lay the foundation for the success and continued expansion of ZEISS' technology and market leadership. ZEISS invests 13 percent of its revenue in research and development – this high level of expenditure has a long tradition at ZEISS and is also an investment in the future.

With over 32,000 employees, ZEISS is active globally in almost 50 countries with around 30 production sites, 60 sales and service companies and 27 research and development facilities. Founded in 1846 in Jena, the company is headquartered in Oberkochen, Germany. The Carl Zeiss Foundation, one of the largest foundations in Germany committed to the promotion of science, is the sole owner of the holding company, Carl Zeiss AG.

Further information at www.zeiss.com

ZEISS Vision Care

ZEISS Vision Care is one of the world's leading manufacturers of eyeglass lenses and ophthalmic instruments. The unit is allocated to the Consumer Markets segment and develops and produces offerings for the entire eyeglass value chain that are distributed globally under the ZEISS brand.