

PURAVIS[™]

Eco-friendly glass optical fibers



SCHOTT is an international technology group with more than 125 years of experience in the areas of specialty glasses and materials and advanced technologies. With our high-quality products and intelligent solutions, we contribute to our customers' success and make SCHOTT part of everyone's life.

For over 40 years, SCHOTT has been doing pioneering work in the field of light and image transmission. Our Lighting and Imaging business unit is a global leader when it comes to developing and manufacturing innovative fiber optics technologies, state-of-the-art LED lighting solutions and lighting systems and components. Nevertheless, SCHOTT is not only a leader in terms of its technology, but is also working hard to systematically extend its environmental commitment.

Extremely enlightening: Pure raw materials, more light

With the development of the innovative glass optical fibers PURAVIS[™], SCHOTT is now launching a "green" product to market that is manufactured in an environmentally friendly manner and, at the same time, transmits even whiter light than conventional glass optical fibers.

Pacemaker of Success | Our environmental commitment is based on our firm belief that taking environmental aspects into consideration no longer represents an obstacle, but is rather a pacemaker for innovative and sustainable product developments.

By launching the high-purity glass optical fibers PURAVIS[™], the Lighting and Imaging business unit of SCHOTT sets yet another milestone in the development of environmentally friendly technologies. These new high-tech fibers are produced without using the heavy metal lead.

However, not just the glass itself, but also the entire proprietary manufacturing process, in which neither arsenic nor antimony are used, is environmentally friendly. In other words, any product that is equipped with PURAVIS[™] already complies with the EU directives RoHS and REACH today and is ready for future environmental requirements – worldwide.

The new SCHOTT PURAVIS[™] glass optical fibers are rather impressive due to a number of improved performance parameters. This will not only benefit the environment, but also our customers.



IMPROVED PROPERTIES

- More natural color rendering
- Low attenuation in the visible range
- An improved numerical aperture
- Very low dispersion
- High long-term stability



Shiny White Light | One of the most obvious advantages that PURAVIS[™] offers is the outstanding transmission of white light. Due to the lower color shift, illuminated objects retain their natural color – even if the fibers are used in long light guides.

Thanks to the improved numerical aperture, the light guide captures more light from the very start. The low attenuation in the visible range results in even higher light output at the end of the light guide. This allows for smaller diameter of light guides with same output and easier installation.

The very low dispersion of PURAVIS[™] glass optical fibers results in illumination with high color uniformity.



Wave length in nm

PURAVIS[™] allows wavelengths in the visible range to transmit much more easily than traditional glass fibers.

Advanced in two respects

For PURAVIS[™], a very exciting future lies ahead. In two different respects, in fact. The fibers have a long lifespan and offer for plenty of great ideas on various innovative applications.



PURAVIS[™]: the new glass optical fibers that have an extremely long lifetime

Longer lifetime | The demands placed on a sustainable product innovation are reflected not only in manufacturing without using lead, arsenic or antimony, but also in the longevity that PURAVIS[™] offers.

The long lifespan is achieved through better chemical stability, which is particularly important for medical reprocessing like autoclaving or cleaning, but also for outdoor applications, such as water fountains and swimming pools. Thanks to the good solarization stability PURAVIS[™] glass optical fibers can be used together with high-performance light sources for very long periods of time.

Open up new application possibilities with PURAVIS™

New Product Developments | Technological advances always open up new application opportunities that have never been explored before. For example, fluorescence-based applications in the area of medical diagnostics and microscopy are both possible due to improved transmission in the near UV range.

This offers us excellent prospects for developing new solutions to the challenges of the future together with our customers.



In harmony with nature: manufactured without lead, arsenic and antimony Lighting and Imaging SCHOTT AG Otto-Schott-Str. 2 55127 Mainz Germany Phone +49 (0)6131/66-0 Fax +49 (0)6131/66-7705 lightingimaging@schott.com www.schott.com/lightingimaging

