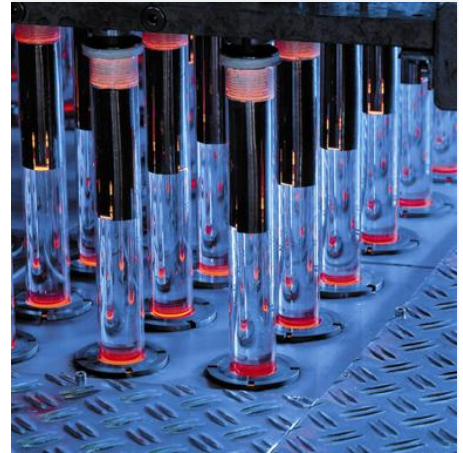


Delivery Forms PURAVIS™ Glass Optical Fibers

Cost efficiently processed on SCHOTT's Multi Fiber Drawing Towers the mass-produced PURAVIS™ glass optical fibers are available in different delivery forms:

- **Custom-sized fiber bundles** with different lubricants in bundle diameters from 0.5 to 10 mm (for details see next page)
- **Extruded cables:** Optical fibers with extruded polymer sheathing offer easier and thus cost effective assembly into final fiber optic components, in particular for mass-production processes.
- **Light guide components** assembled according to customer specification in a variety of configurations
- For further details please contact your SCHOTT sales representative

Multi Fiber Drawing Tower



Lubricants for custom-sized Fiber Bundles

PURAVIS™ glass optical fibers are coated with organic lubricants on their surface. The main purpose of these lubricants is reduction of friction between the single fibers during assembly and usage to maintain mechanical stability and flexibility.

“Dry”	Lubricant forms a layer, which has a “dry” surface feel. Fibers can be separated easily, well suited for randomization processes. Good bonding, good hot-fusing performance. High electrostatic charging of the fibers in environments with low humidity. May require discharge handling by ion gun during assembly.
“Wet”	Lubricant forms a layer, which has a “wet” surface feel. Fibers stick well together within the fiber bundle. Good for handling of long fiber bundles during assembly. Less static charging of the fibers. Bonding and hot-fusing may require pre-treatment of the glass fibers.
“Glass Clad”	Lubricant forms a permanent chemical binding to the glass matrix. Initially handles, feels and looks like a “wet” lubricant with fibers sticking together, which is well suited for separation of fibers as well as sizing of fiber bundles. In dry state “glass clad” performs like a dry lubricant with high vacuum stability and high temperature resistance up to 350°C. Good bonding, good hot-fusing performance. May develop electrostatic charging In dry state, depending of environmental humidity. Gluing in humid environments may require removal of excess lubricant.

Light Guides for Moving Applications

Light guides which are intended to be used in repeatedly moving applications may require additional measures for long lifetime. The life time of the light guide components depends on the specific mechanical design in combination with additional lubrication. Please contact your SCHOTT sales representative for further information.

Shelf Life of lubricated fiber bundles

Shelf life has been evaluated according to IEC 60721 Part 3-1 (Class: 1K2, 1B1, 1C1, 1S2), packaged as shown on next page

12 months

Temperature Stability

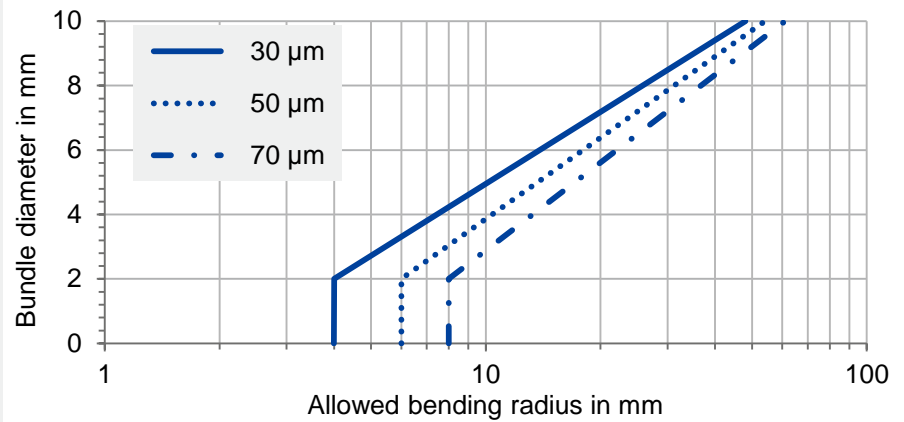
Storage/Transportation (non condensing conditions)

- 20°C to 70°C / - 4 F to 158 F

Mechanical Stability of PURAVIS™ Glass Optical Fibers

PURAVIS™ Glass Optical Fibers feature high mechanical stability enabling high flexibility and very small bending radii.

The shown graph displays the correlation between fiber bundle diameter and allowed bending radii for the 3 fiber sizes of 30, 50 and 70 μm .



Delivery Options for PURAVIS™ custom-sized Bundles

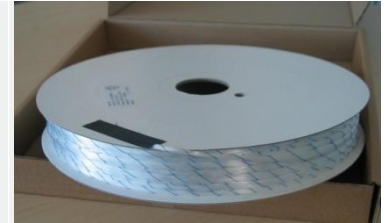
“Endless” Fiber Bundles on Cardboard Spools

Originating from SCHOTT's Multi Fiber Drawing Towers the fibers can be delivered as “endless” bundles wound onto a cardboard spool.

BD: 1.0 - 6.0 mm
BT: ± 0.05 - ± 0.15 mm
BL: up to 200 m

Delivery Form

To avoid interlacing of the individual fibers during storage and transportation each bundle is wrapped with a cotton string before being wound onto the spool.



Cut-to-Length Bundles

Originating from SCHOTT's Multi Fiber Drawing Towers cut-to-length bundles assembled on winding wheels allow customizing of larger diameter bundles.

BD: 1.0 - 10 mm
BT: ± 0.05 mm
BL: 5 m - 10 m

For storage and transportation the individual bundles are sleeved into a loose PVC sheathing. The ends of each bundle are fixed by a piece of shrink tube to avoid interlacing of the individual fibers and allow easy unpacking for further processing. The sleeved fiber bundles are wound up and put into a cardboard box.



Thin Precision Bundles

For highest precision fibers drawn on SCHOTT's triple fiber drawing tower are wound onto a drum with a circumference of 5.8 meter until the defined bundle diameter is reached.

BD: 0.35 - 4.0 mm
BT: ± 0.05 mm
BL: 5.7 m

BD: Bundle diameter
BT: Bundle dia. tolerance
BL: Bundle length

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