

Brilliance in Lighting

Special glass tubing for lamp manufacturing



SCHOTT
glass made of ideas

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Glass tubing that spans the globe

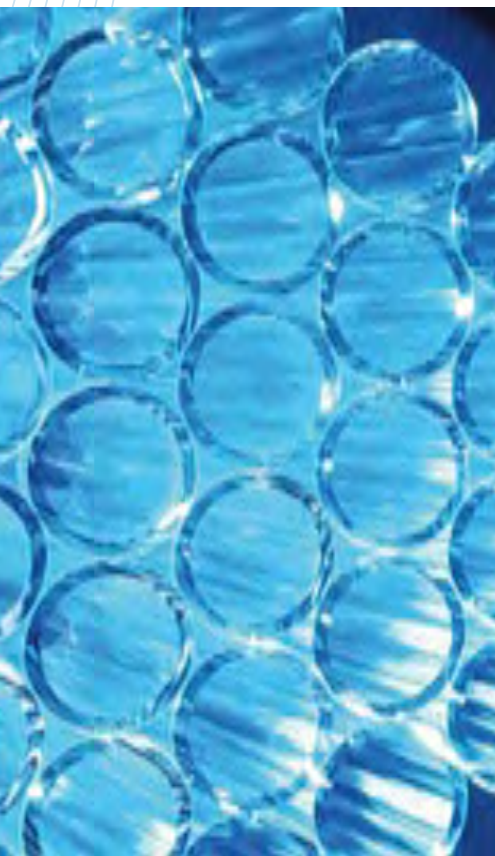
With an annual production capacity of more than 130.000 tons and manufacturing sites on three continents, the SCHOTT Group's Tubing Business Segment ranks as one of the world's leading manufacturers of glass tubing.

We supply 60 glass types that are manufactured in a broad spectrum of dimensions to customers in nearly every country in the world with the help of a wide distribution network. All of the sites employ common strategies in the areas of research & development, manufacturing, quality assurance and logistics. A continuous exchange of technological know-how ensures SCHOTT is a worldwide leader in the tubing field. All special glass tubes, rods and capillaries are subject to close inspection using Opto-electronic control mechanisms, thereby offering the highest quality.

Innovation for the Future

SCHOTT offers much more than just 125 years of experience working with glass. By combining our on-going process innovation, advanced technology, and in-depth expertise the Tubing Business Segment is continuously shaping and advancing the development of the lighting market.

With our own chemical and physics laboratories, as well as a special scientific and technical consulting team to support our customers, Schott is ideally positioned to research and develop tomorrow's solutions.



Selective transmission

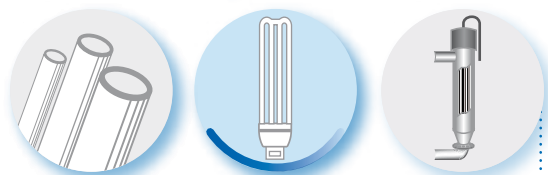
Depending on the application, SCHOTT glasses remain transparent into the high-energy UV C range or filter out parts of the UV spectrum. In the event that ozone is to be released, glasses with permeability levels below 200 nanometers may be used. SCHOTT glasses already display their strengths during the manufacturing process. For example, they can be hermetically sealed with metals or alloys.



Deuterium lamps.....

When efficiency counts: When used in deuterium lamps for analytical purposes, our glasses ensure high UV light yields and permanently resist solarization.

Relevant glass types: 8337B
For more technical details please visit the special glass type selector at www.schott.com/tubing

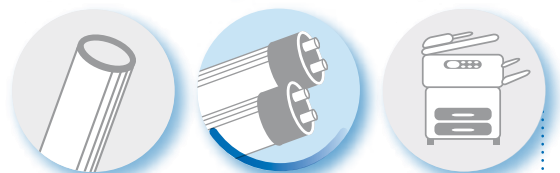


Germicidal lamps.....

Broad range: We offer glasses for lamps that are used for disinfection and cleaning that cover the entire UV range. Ozone-forming versions are also available.

Relevant glass types: 8405
For more technical details please visit the special glass type selector at www.schott.com/tubing





Phototherapy and reprography.....

Capable of differentiating: For therapeutic or technical applications, SCHOTT offers glasses that allow for only certain predetermined wavelengths to pass through.

Relevant glass types: 8606, 8337B
For more technical details please visit the special glass type selector at www.schott.com/tubing



Cladding tubes for UV lamps.....

Specific Protection: Our cladding tubes offer maximum safety. They remain permanently transparent and offer the highest chemical and physical stability.

Relevant glass types: 8347
For more technical details please visit the special glass type selector at www.schott.com/tubing

Visible from a distance

The lamps used in the automotive field are exposed to a wide variety of adverse conditions. We produce tubing out of robust aluminosilicate and borosilicate glasses specifically for these types of applications. Thanks to their geometric accuracy, they are easy to process and can be hermetically sealed together with metals. This glass even stands up to both severe heat and sudden changes in temperatures.



Front headlights

Uniting an unlikely couple: Glass tubing from SCHOTT can be melted together with molybdenum and thus allows for the filament to be placed in a precise manner. This results in greater safety at night.

*Relevant glass types:
8252,8253 und NEO 1730
For more technical details please
visit the special glass type selector at
www.schott.com/tubing*



Signal lighting

Braving the heat: Our soft glasses even tolerate high bulb temperatures. This means longer service lives for the lamps in addition to high efficiency.

*Relevant glass types:
8252,8253 und NEO 1730
For more technical details please
visit the special glass type selector at
www.schott.com/tubing*

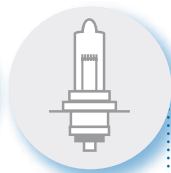
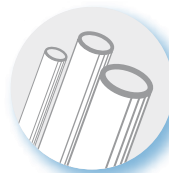


Daytime running lights

Direct light in a flexible manner: Light conductors that fit just perfectly and ensure that light is transmitted with only minimal losses are made from ultrapure borosilicate glass.

Relevant glass types: 8347

For more technical details please visit the special glass type selector at www.schott.com/tubing



Further Processing

Variable manufacturing: We supply our customers with exhaust tubes that offer high geometric accuracy and can also be manufactured to required lengths.

Relevant glass types:

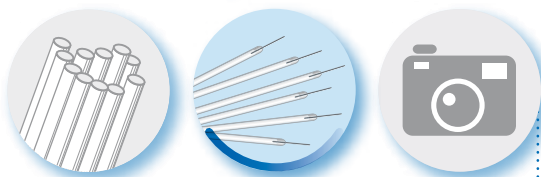
8252, 8253 und NEO 1730

For more technical details please visit the special glass type selector at www.schott.com/tubing



Illuminating in the blink of an eye

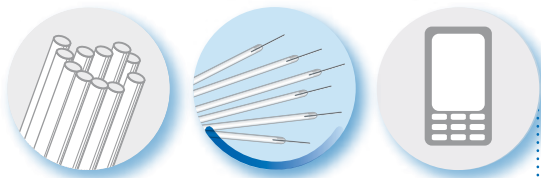
Flash lamps release an enormous amount of light and heat inside an extremely small space in only fractions of a second. Glass tubing from SCHOTT withstands these stresses and guarantees high light yields. Our caesium-doped glasses extend the service life of flash tubes. They can be processed in a very precise manner and are perfectly suited for use in miniature devices.



Camera flashes

Convincing quality: Flash manufacturers rely on the exact dimensions and perfect machinability of our glass tubing. Photographers appreciate the high optical quality of the flash lamps.

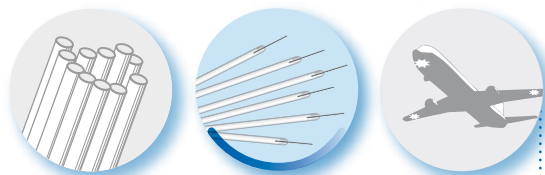
Relevant glass types: 8487, 8660 – For more technical details please visit the special glass type selector at www.schott.com/tubing



Mobile devices

Attention to detail: We also supply glass tubing that has extremely small outside dimensions for the flashes in cell phone cameras.

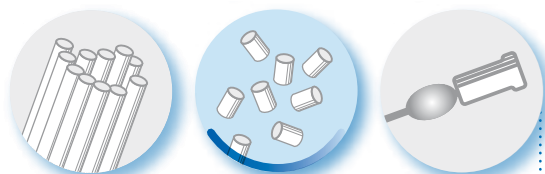
Relevant glass types: 8487, 8660 – For more technical details please visit the special glass type selector at www.schott.com/tubing



Industrial

Durable safety: Our glass tubing can double the service life of flash lamps – for instance, inside aircraft positioning lamps.

Relevant glass types: 8487, 8660, DURAN® – For more technical details please visit the special glass type selector at www.schott.com/tubing



Beads

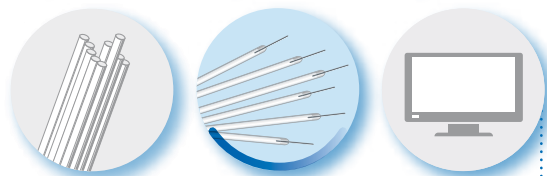
Components bond: We supply geometrically exact bonds between the glass tubing and electrodes to ensure that both the metal and glass form a single unit.

Relevant glass types: 8487, 8660 – For more technical details please visit the special glass type selector at www.schott.com/tubing



Acting in the background

Cold Cathode Fluorescent Lamps (CCFL) provide the background light for Liquid Crystal Displays (LCDs) found in displays, televisions and monitors. Glass tubes from SCHOTT are designed to accommodate this type of energy-efficient lamp. They filter out the harmful UV spectrum, are unbreakable, can be melted together with different electrodes and are available with a diameter from 1.5 millimeters. The appropriate beads are also available.

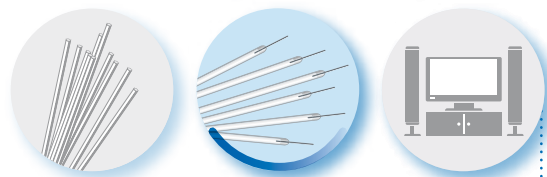


Televisions.....

Covering all the details: Our glasses deliver brilliant reproduction of colors and homogeneous back lighting. True quality that you can see.

Relevant glass types: 8271N, 8689, 8270, 8487

For more technical details please visit the special glass type selector at www.schott.com/tubing



Displays

Putting information into perspective with light: Displays are small, yet they are expected to deliver images that are sharp and rich in contrast. Our products deliver the high light output needed for these lamps.

Relevant glass types: 8271N, 8689, 8270, 8487

For more technical details please visit the special glass type selector at www.schott.com/tubing





A wide variety of applications

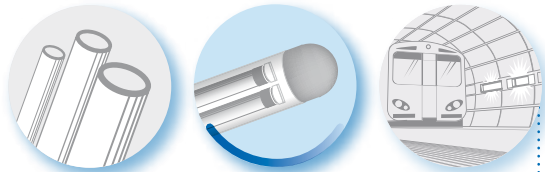
Countless shapes, colors, and light bulb functions can be realized with the help of glass tubing from SCHOTT. In addition to delivering high luminescent efficiency, they offer protection, for instance with high-strength, thermally toughened safety glass. Customized exhaust tubes and cut-to-measure formats help lower manufacturing costs for processing companies.



Decorative lighting

Unique and distinctive: Using a direct-draw process we manufacture tubing that comes with corners, edges and profiles so that custom lighting ideas can be realized more easily.

Relevant glass types:
CONTURAX®, CONTURAX® Pro, DURAN®, AR-GLAS®
For more technical details please visit the special glass type selector at www.schott.com/tubing

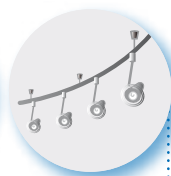
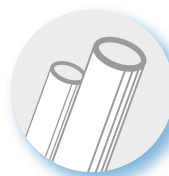


Safety lighting

Greater security: Our thermally toughened glass also brings light to sensitive destinations like tunnels, oil rigs and chemical manufacturing plants.

Relevant glass types:
DURATAN®
For more technical details please visit the special glass type selector at www.schott.com/tubing

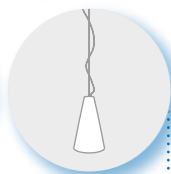
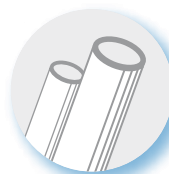




Shop- and home lighting

Resilient and bright: Thanks to its direct fusing capabilities, glass tubing from SCHOTT represents the ideal technological and economical basis for halogen and metal halide lamps.

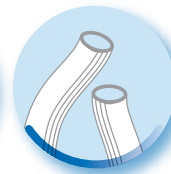
Relevant glass types: 8252, 8253, 8487 – For more technical details please visit the special glass type selector at www.schott.com/tubing



Energy-saving lamps

Highly efficient: Due to their UV blocking capabilities and their geometric accuracy, borosilicate glasses are an ideal starting material for lamps that are to be used in an energy-conscious manner.

*Relevant glass types: 8271N
For more technical details please visit the special glass type selector at www.schott.com/tubing*



Neon lighting

Extremely flexible: The high geometric accuracy of the products that SCHOTT manufactures offer a great advantage to companies involved in shaping neon tubes.

*Relevant glass types:
DURAN®, AR-GLAS®
For more technical details please visit the special glass type selector at www.schott.com/tubing*



At a glance

UV lamps

SCHOTT 8337B



Borosilicate glass, highly UV transmitting, sealing to Kovar and Tungsten

SCHOTT 8347



Colourless, highly UV transmitting Borosilicate glass

SCHOTT 8405



Highly UV transmitting soft glass

SCHOTT 8606



Highly UV-A and UV-B transmitting soft glass, UV-C block

Automotive

SCHOTT 8252



Alkaline earth aluminosilicate glass, Sealing to Molybdenum

SCHOTT 8253



Alkaline earth aluminosilicate glass, Sealing to Molybdenum

NEO 1730



Alkaline earth aluminosilicate glass, Sealing to Molybdenum

SCHOTT 8347



Colourless, highly UV transmitting Borosilicate glass

Flash lamps

SCHOTT 8487



Sealing glass for Kovar and Tungsten

SCHOTT 8660



Sealing glass for Kovar and Tungsten

DURAN®



Borosilicate glass, highly chemically and thermally resistant

Backlights

SCHOTT 8271N



Borosilicate glass, highly UV-blocked, stabilised against solarisation, sealing to KOVAR

SCHOTT 8689



Borosilicate glass, highly UV-blocked, stabilised against solarisation, sealing to KOVAR

SCHOTT 8270



Electrically highly insulating borosilicate glass for sealing to Kovar and Molybdenum

SCHOTT 8487



Sealing glass for Tungsten

General Lighting

CONTURAX®



Borosilicate glass in profiled shapes, chemically highly resistant

CONTURAX® Pro



Profile glass tubing in rectangular and non rectangular shape.

DURAN®



Borosilicate glass, chemically and thermally highly resistant

AR-GLAS®



Soda-lime glass with a high alkali and alkaline earth oxide content

DURATAN®



Prestressed borosilicate glass tubing

SCHOTT 8252



Alkaline earth aluminosilicate glass, Sealing to Molybdenum

SCHOTT 8253



Alkaline earth aluminosilicate glass, Sealing to Molybdenum

SCHOTT 8487



Sealing glass for Kovar and Tungsten

SCHOTT 8271N



Borosilicate glass, highly UV-blocked, stabilised against solarisation, sealing to KOVAR

Further applications of SCHOTT Glass Tubing:

Pharmaceutical
packaging



Renewable energy, plant construction
and laboratory



Electronics & Optics

Decoration and
Gifts



Tubing
SCHOTT-Rohrglas GmbH
Erich-Schott-Straße 14
95666 Mitterteich
Germany
Phone: +49 (0)9633/80-0
Fax: +49 (0)9633/80-614
info.tubing@schott.com
www.schott.com/tubing

SCHOTT
glass made of ideas