

SCHOTT® Automotive Sidelight

High-quality side-emitting glass fiber light guide



Sidelight

Enhance your illumination. Choose proven reliability.

SCHOTT Sidelight is a patented technology using glass fiber optics to answer the high demand for automotive interior and exterior lighting applications.

Sidelight offers robustness and flexibility. In combination with highly effective LEDs homogeneous light effects can be created even if available space is limited and curves are tight.

Key Features and Benefits

Design

- Customizable outer diameter (OD >2,2mm)
- Outstanding bending radius (5x OD)
- Adaptation to diverse customer light sources possible (single color and RGB)
- High color stability over a length of several meters
- High uniformity of luminance (several grades available in order to meet application specific needs)

Integration & Maintenance

- Easy- plug and play, since Sidelights can be pressed into cavities
- No squeeze or rattle
- High mechanical strength and resistance of glass fibers foster durability and lower maintenance costs
- No additional tooling cost required
- Integration in late design-phase possible
- Operates with both LED and laser light sources

Safety

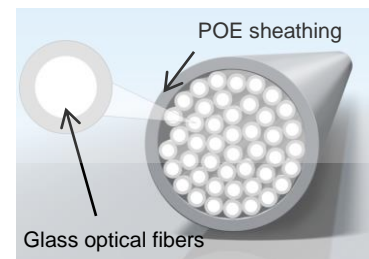
- UV- and chemical resistance, outperforming standard plastic fibers
- Climate resistance up to 105°C (*higher temperatures upon request*)

Interior Applications

- Instrument Panel
- Door Panel
- Center Console
- Cup Holder
- Headliner /

Exterior Applications

- Running Board
- Roof Rack
- Head & Tail lamps
- Grille Illumination



Enlarged

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glass made of ideas

Light guide parameter

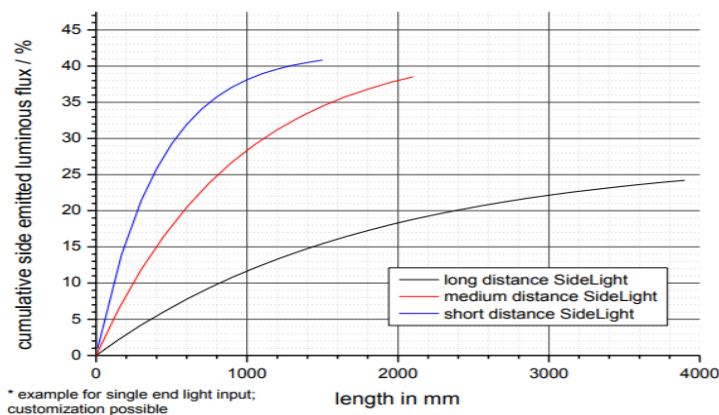
Parameter	Typical Value	Further Information
Light guide material	Glass optical fiber bundle, plastic sheathing	Customizable
Light guide length	200mm up to 6m	Customizable
Light guide outer diameter	1,2mm up to 5,0mm	Customizable
Bending radii	~5 times outer diameter	Min. static values even below and upon request
Numerical aperture	0,48 (57°)	50° intensity value
Color shift	<150 K/m	Customizable

Qualification and Tests

Test Description	Condition	Results
Temperature Cycles	50 cycles at -40°C / +105°C	✓
Temperature Resistance	+95°C / <20% rel. humidity / 10d	✓
Chemical Load	ISO 16750-5 : 2010 (E)	✓
VOC-, FOG, Emission-Test	According to OEM specification	✓
Xenon-Test	According to OEM specification	✓
Flammability	According to OEM specification	✓

- Full qualification report available upon request -

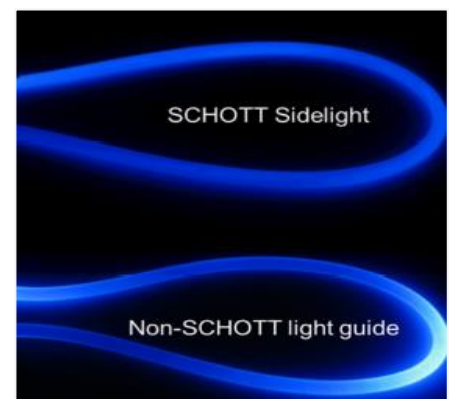
Luminance over Length



Advantages of glass fibers

Different to plastic fibers, SCHOTT glass fibers offer

- Better homogeneity even in small bending radii
- Better color stability
- Significantly higher chemical and temperature resistance



SCHOTT - Your reliable and experienced partner

SCHOTT is a German technology company with more than 125-years of experience in glass and lighting technology. As a reliable partner for automotive applications for over 20 years, we are experienced with existing OEM standards and regulations in all automotive tier levels and design phases.

Our Sidelights have successfully proven their quality and roadworthy in several models of leading German car manufacturers, as well as leading US and Chinese models.

schott.com

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