

SCHOTT® Specialty Glass Tubing for Halogen Lamps

Quality for Efficiency and Durability

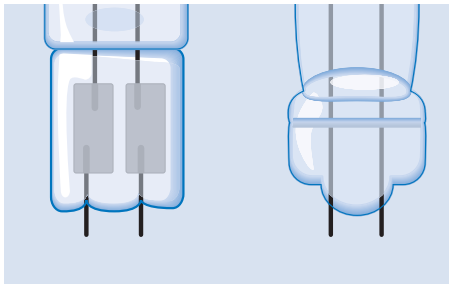


SCHOTT
glass made of ideas

Halogen Lamps made from SCHOTT® Specialty Glass

Quality for Efficiency and Durability

Halogen Lamps



SCHOTT® Alumino-silicate glass types can be sealed directly with molybdenum (right). The use of Interfacial foil as for conventional glass types (left) is not necessary.

SCHOTT is one of the world's leading manufacturers of specialty glass tubing for the production of halogen lamps. Alkali-free* alumino-silicate glass types from SCHOTT with their tight geometric tolerances make for excellent workability and a high temperature load capacity for a long life cycle.

The demands placed on glass used within the automotive field are very high. Temperatures of approx. 680 °C are generated in H7 lamp bulbs. Alkali may then completely disrupt the halogen circuit. More recent types of lamps (e.g. H9) can reach even higher temperatures and have even higher demands on temperature resistance and purity of the glass.

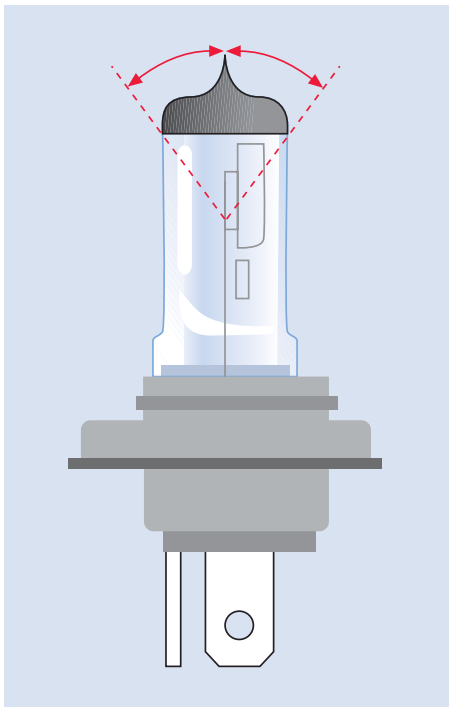
Furthermore, direct sealing of conventional glass types with molybdenum is not possible due to the difference between their coefficients of thermal expansion. The inevitably-used interfacial foil however reduces the quality and efficiency of the lamp.

Alumino-silicate glass from SCHOTT

With its alumino-silicate glass types 8252, 8253 and NEO 1730 SCHOTT provides special solutions to this kind of demand. All these glass types are alkali-free*, so that even at high bulb temperatures, the life cycle of the lamps is extended.

The optimum performance of halogen lamps is dependent on the exact positioning of the spiral filament. Matching the alumino-silicate glass types from SCHOTT to the thermal coefficient of expansion of molybdenum allows for direct sealing. The position of the spiral filament can thus be exactly defined, and lighting efficiency of the halogen lamp is considerably increased.

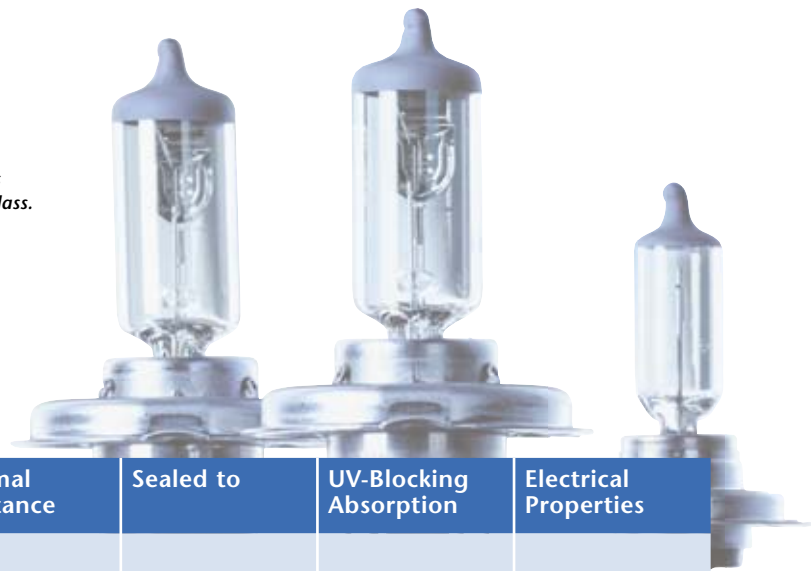
The high temperature resistance of alumino-silicate glass types from SCHOTT additionally prolongs the life cycle of the lamps. Glass 8253 in particular already complies with the demands of recent lamp generations such as H9 or H11.



Positioning the spiral filament as exactly as possible allows for optimum and precise illumination.

* Compare Technical Data Sheets for Glass types 8252, 8253, NEO 1730 and our Technical Terms of Supply for Halogen Lamp Bulbs

High-performance halogen lamps
made from SCHOTT® Specialty Glass.



Glass type	Thermal Resistance	Sealed to	UV-Blocking Absorption	Electrical Properties
SCHOTT® 8252 Alkaline-Earth Alumino-silicate Glass Specially developed for H4 lamps with high bulb temperature	+	Mo	++	++
SCHOTT® 8253 Alkaline-Earth Alumino-silicate Glass Specially developed for H4 and H7 lamps (higher bulb temperature than 8252)	++	Mo	+	++
SCHOTT® NEO 1730 Alkaline-Earth Alumino-silicate Glass Specially developed for H4 lamps with a light similar to XENON	+	Mo	++	+

Mo = Molybdenum
+ = good
++ = very good

Advantages at a Glance

- High accuracy for positioning of the spiral filament through direct sealing with molybdenum, and tight geometric tolerances
- High thermal resistance of the lamp, particularly within the pinch seal
- Alkali-free*
- High resistance to temperature change

For further data compare with
Technical data Sheet
Glass types 8252, 8253, NEO 1730
available at
www.schott.com/tubing/halogen.
Also see our Technical terms of Supply
for Halogen Lamp Bulbs.

Further Processing

SCHOTT also provides further components for lamp production:

- Exhaust tubes produced by the score and crack method:
OD range 3-6 mm, Length 25-100 mm,
tube ends fused for lengths of 40 mm or more,
Wall thickness according to customer's own specification
- Spacer cemented / sawed
(very good quality of cut, no chipping of tube ends)
OD 1-7 mm, Length 5-15 mm, smaller length tolerances possible
- Alternative processing versions upon request



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