

A close-up photograph of a drone's front sensor, likely a LiDAR, emitting a bright green laser beam. The drone is grey and blue, with a red light visible on the right side. The background is a blurred green field.

**SCHOTT**  
glass made of ideas

LiDAR systems  
inspired by  
**BOROFLOAT® 33**

In touch with the future

# LiDAR systems inspired by BOROFLOAT® 33

## In touch with the future

The reliable and consistent quality of BOROFLOAT® 33, coupled with an outstanding versatility to address the demands of even the most sophisticated applications, make BOROFLOAT® 33 a perfect specialty glass solution also for LiDAR systems. It combines superior quality and excellent flatness with outstanding thermal, optical, chemical and mechanical features.

BOROFLOAT® 33 – The sum of its properties is what makes it unique!

## Crystal clear benefits of BOROFLOAT® 33

### Entrance window

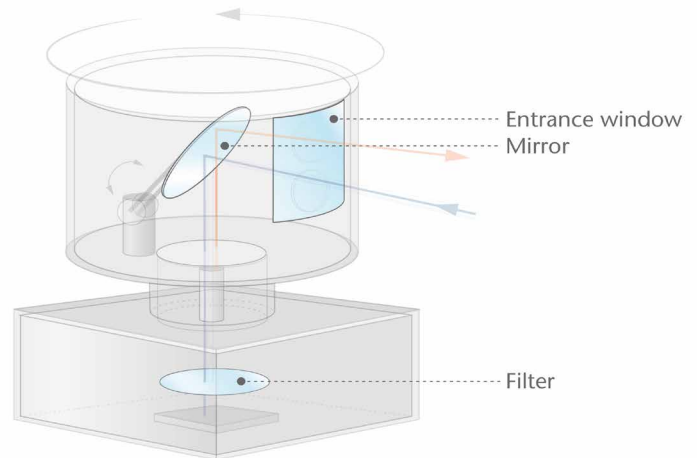
- Exceptionally high transparency
- High chemical durability
- Outstanding thermal resistance/ stability
  - Low thermal expansion even in lowest temperature ranges
- Excellent mechanical strength
  - Strong resistance to abrasion and scratches
  - High resistance to sharp impacts

### Mirror (Beamsplitter)

- Very good temperature stability
- Excellent resistance to thermal shock

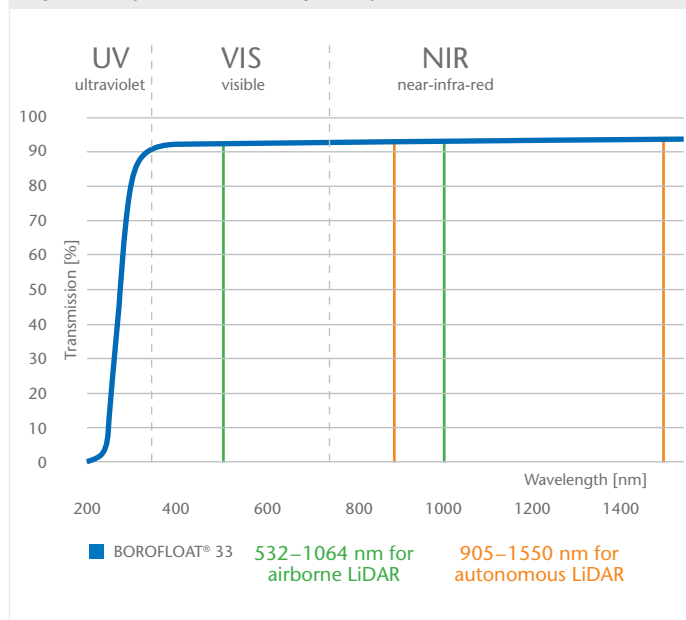
### Filter

- Significantly increased transparency for colorless visual appearance
- Low color shift in VIS-Transmission
- Low Coefficient of Linear Thermal Expansion (C.T.E.  $3.25 \cdot 10^{-6} \text{ K}^{-1}$ )
- Excellent flatness due to unique Microfloat process

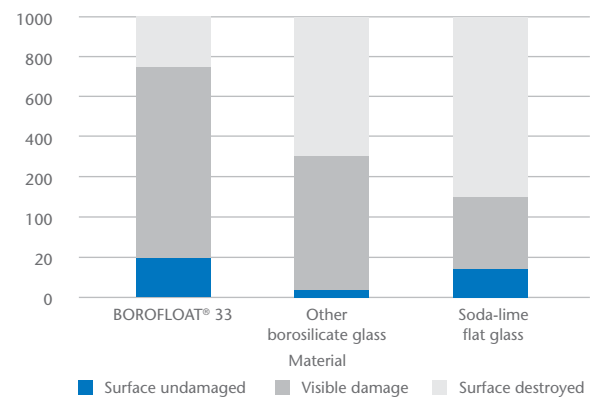


3 components of a traditional LiDAR unit could be made of BOROFLOAT® 33 borosilicate glass.

### Significantly increased transparency

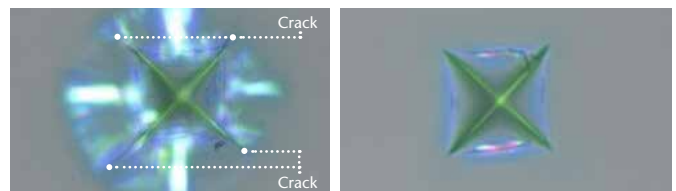


### Resistance to abrasion and scratches



### Resistance to crack initiation

#### Crack initiation at 2 N load



Soda lime glass

BOROFLOAT® 33

BOROFLOAT® 33 is less brittle than other protective glasses and more resistant to sharp impacts e.g. from stones.