

# FIOLAX<sup>®</sup> clear with Optimized Strength (OS)

## General Product Information

Due to the increasing demand for glass containers with higher break resistance, FIOLAX<sup>®</sup> clear with Optimized Strength (OS) was developed. For this quality feature, special attention is paid to avoid surface defects, which may reduce the strength of glass and thus increase the risk of breakage. Since the chemical composition as well as physical properties of Type I borosilicate FIOLAX<sup>®</sup> glass remain fully untouched, FIOLAX<sup>®</sup> clear OS can be used without any need to change registration files.

## Value-adding Product Benefits



### Optimized strength

By reducing the amount and size of flaws on the surface of FIOLAX<sup>®</sup> clear OS, the high strength of the glass can be maintained. This **reduces** the **risk** of **breakage** in downstream processes such as the converting and fill-and-finish.



### Applicable to registered products

Since the chemical properties remain fully untouched, FIOLAX<sup>®</sup> clear tubing can be replaced by FIOLAX<sup>®</sup> clear OS **without** the need of a **new registration** of the pharmaceutical product.



### Verified production quality

The quality control of the tightened specification is enabled by a new high-precision inspection device for glass surfaces – applied as **100 % inspection** for each single tube. Furthermore, the anti-scratch coating prevents the glass tubes from being scratched during transport.



### Superior product quality for demanding applications

FIOLAX<sup>®</sup> clear OS offers a superior product quality especially beneficial whenever the container needs to meet **tougher requirements**, such as resisting a high internal pressure during **lyophilization/cold storage** or maintaining strength despite a reduced wall thickness.



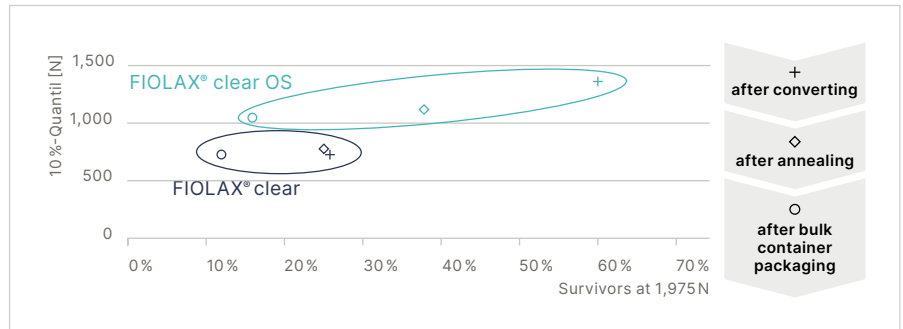
SCHOTT

# FIOLAX® clear OS

## Facts at a Glance

### Verification

Exemplarily, axial pressure performance data of ISO 2R vials are shown in the graph. The data reveals that vials made from FIOLAX® clear OS tubing show a higher break resistance to an axial pressure load of 1975N compared to vials made from FIOLAX® clear with standard visual quality.



Source: Results from SCHOTT internal study

### Features & Specification

Feature	Fault Criteria	AQL/Limit Value
Crack	Regardless of size	Zero defect
Fissure	Regardless of size	0.65
Scratch*	Width > 0.1mm and Length > 2 mm	2.5

\* Significantly tightened scratch length specification compared to standard FIOLAX® clear tubing

- ✓ Anti-Scratch Coating
- ✓ DENSOPACK® packaging

### Availability

FIOLAX® clear OS tubing is produced according to the current Technical Performance Specification (TPS) for pharmaceutical Type I glass tubing including SCHOTT perfeXion® technology. It is available within our **Best value** customizing options for FIOLAX® clear for an outside diameter range of 6.85 mm up to 50.00 mm.

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