

Accu-Glass

FIBER OPTIC SPLICE SLEEVE STRENGTH MEMBERS

APPLICATION

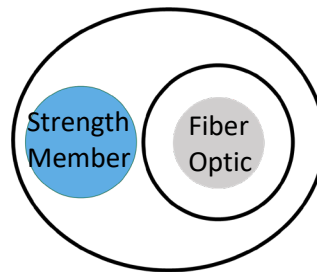
- Strength members provide strength and stiffness in fiber optic splice sleeve applications
- Standard and low-profile fusion applications

FEATURES

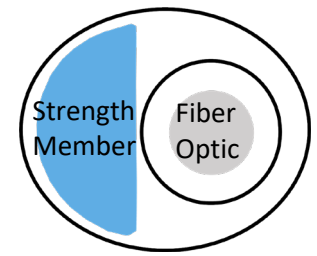
- Electrically non-conductive
- High tensile strength material
- Glass stiffeners match the thermal expansion of fiber materials
- Very long term stability in harsh environments
- Non-corrosive and chemically inert
- Round or Custom shapes to reduce the profile of the splice

BENEFITS

- Glass Strength Member does not have electrical disturbance between a copper cable or conductive material.
- Able to handle a very wide range of temperatures and harsh environments
- Long term stability
- Non-corrosive and chemically inert



*Round glass
strength member*



*Half-Round glass
strength member*

Technical Considerations for Glass Strength Members

Strength

Tensile strength can be 5 to 50 MPa depending on glass type, shape and surface finish

Electrical Properties

Electrical resistance of approximately $10^{18} \Omega$ and dielectric strength exceeding 10 kV/mm.

Thermal Stability

The glasses we use for strength members have thermal expansions of $3 \times 10^{-6} \text{ C/C}$ for borosilicate glass to $9 \times 10^{-6} \text{ C/C}$ for soda lime glass, optimally matching the fibers being spliced. Melting temperatures exceed 800C, allowing use in high temperature applications.

Chemical Stability

Our materials have hydrolytic resistance, meeting or exceeding ISO 719 class HGB 3. Acid resistance meets DIN 12116 class S1, and alkali resistance per ISO 695 class A2. This makes the glass member long-term stable in harsh chemical environments.

Shape and Length

We manufacture the glass strength members with circular, half-round or custom cross sections.

We economically produce in lengths from a few mm to several meters. Lengths of 10 to 50 mm are most commonly requested.