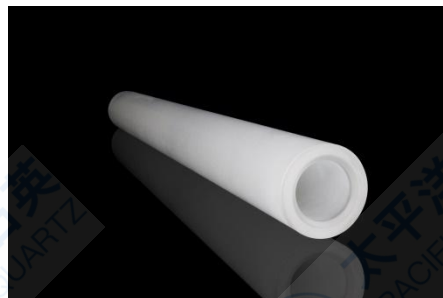




## Optical Fiber Quartz Cylinder

### I. Application

Optical fiber quartz cylinder is used as the base material for making perform in RIC process



### II. Characteristics

Optical fiber quartz cylinder features high purity and low hydroxyl, etc.

### III. Code

PQ181FH

### IV. Typical Size

| OD Range            | OD<br>Tolerance | WT<br>Tolerance | Siding | Ovality | Bow  |
|---------------------|-----------------|-----------------|--------|---------|------|
| $80 \leq OD < 120$  | $\pm 2\%$       | $\pm 10\%$      | 20%    | 2%      | 0.3% |
| $120 \leq OD < 140$ | $\pm 2\%$       | $\pm 10\%$      | 20%    | 2%      | 0.3% |
| $140 \leq OD < 150$ | $\pm 2\%$       | $\pm 10\%$      | 20%    | 2%      | 0.3% |
| $150 \leq OD < 160$ | $\pm 2\%$       | $\pm 10\%$      | 20%    | 2%      | 0.3% |



## V. Physical & Chemical Properties

### i. Trace Elements

Unit: ppm

| Code    | Criteria | Al | Ca  | Cr    | Cu    | Fe  | K   | Li  | Mg   | Mn   | Na  | Ti  | Zr |
|---------|----------|----|-----|-------|-------|-----|-----|-----|------|------|-----|-----|----|
| PQ181FH | Typical  | 8  | 0.6 | <0.05 | <0.01 | 0.1 | 0.1 | 0.2 | 0.05 | 0.05 | 0.1 | 1.3 | 1  |
|         | Maximum  | 10 | 1   | 0.1   | <0.01 | 0.5 | 0.5 | 0.5 | 0.2  | 0.2  | 0.5 | 2   | 2  |

### ii. OH Content

|         |            |
|---------|------------|
| PQ181FH | OH < 10ppm |
|---------|------------|

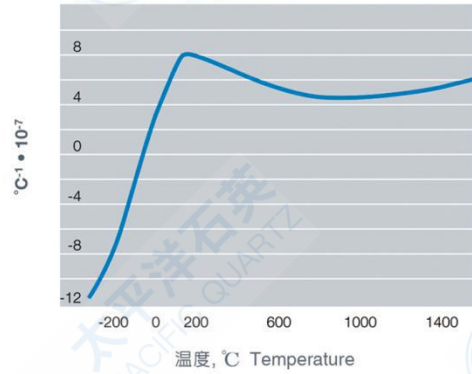
### iii. Physical Properties

| Item                                                            | Index Value          |
|-----------------------------------------------------------------|----------------------|
| Density (g/cm <sup>3</sup> )                                    | 2.2                  |
| Heat Conductivity (w/m·k, 1000°C)                               | 2.28                 |
| Coefficient of Thermal Expansion<br>(°C <sup>-1</sup> , 1000°C) | 5.5×10 <sup>-7</sup> |
| Softening Point (°C)                                            | 1670                 |
| Annealing Point (°C)                                            | 1210                 |
| Strain Point (°C)                                               | 1110                 |



#### iv. Coefficient of Thermal Expansion & Viscosity

膨胀系数  
Coefficient of Thermal Expansion



粘度  
Viscosity

