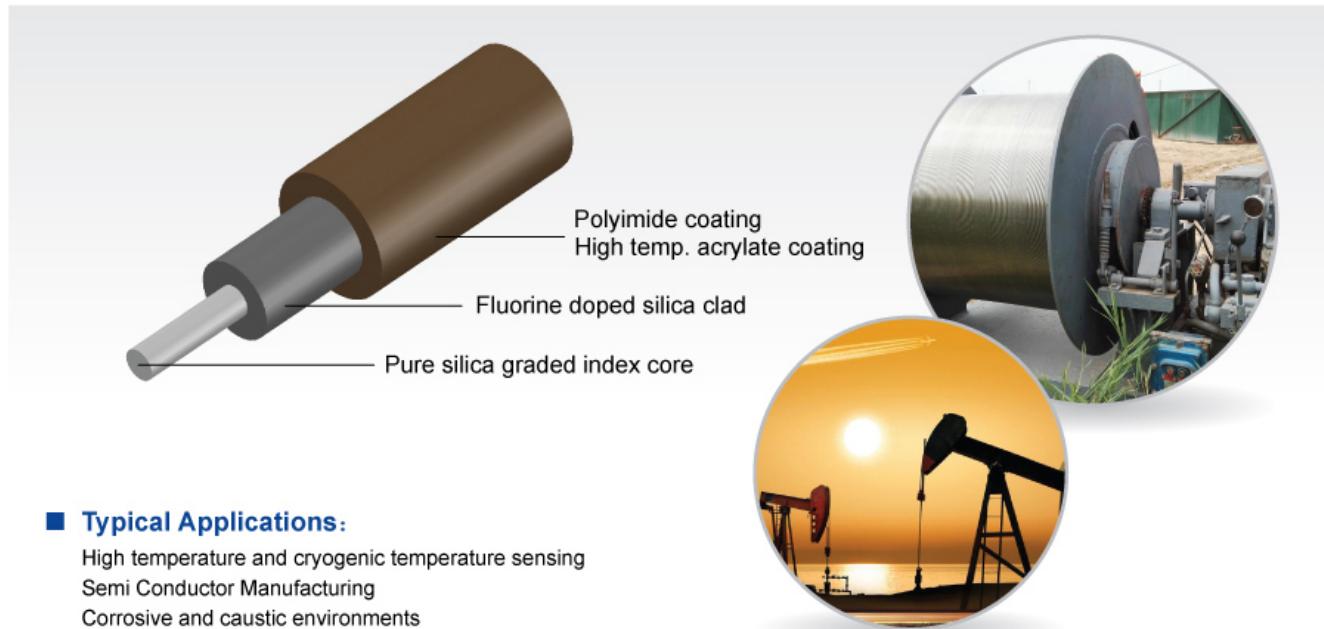


# High Temperature Fiber

## Pure Silica Graded Index Core High Temperature Fiber



### ■ Typical Applications:

- High temperature and cryogenic temperature sensing
- Semi Conductor Manufacturing
- Corrosive and caustic environments
- Ultra high vacuum devices
- Radiation resistant sensors

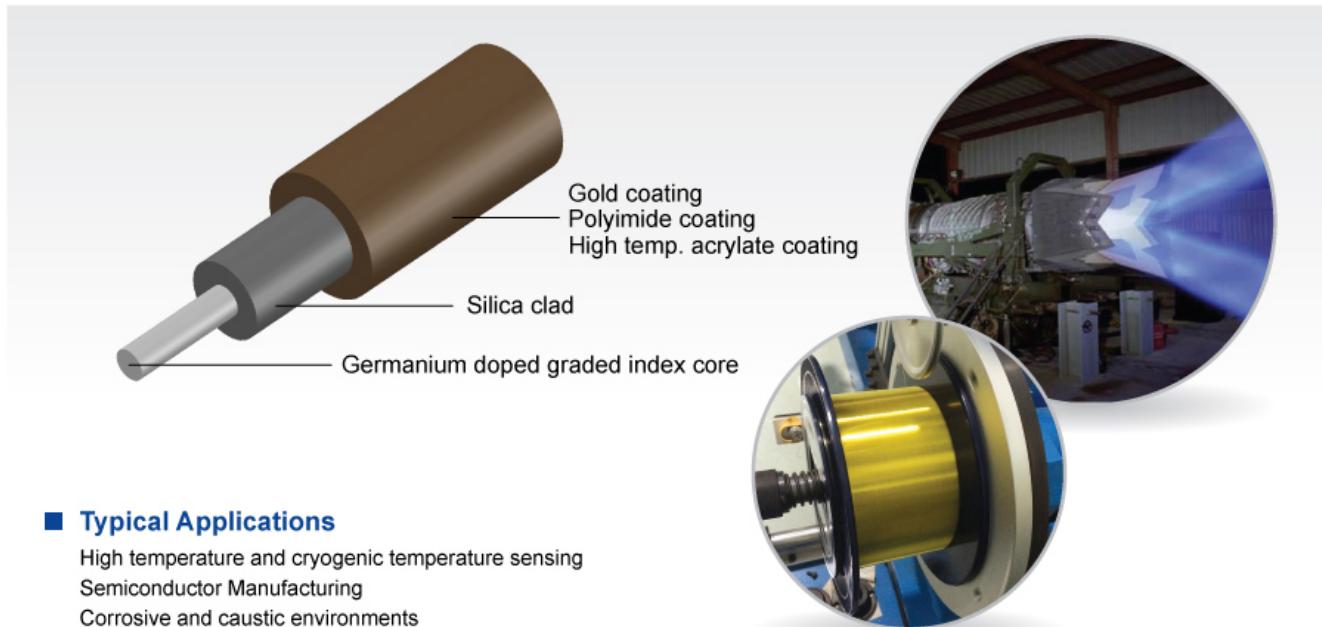
| Polyimide Coating  |                       | Working Temperature: -60 ~ +350°C |                          |
|--------------------|-----------------------|-----------------------------------|--------------------------|
| Fiber Type<br>PTIG | Core Diameter<br>(μm) | Clad Diameter<br>(μm)             | Coating Diameter<br>(μm) |
| 50/125/155P20      | 50                    | 125                               | 155                      |

| High Temperature Acrylate Coating |                       | Working Temperature: -40 ~ +150°C |                          |
|-----------------------------------|-----------------------|-----------------------------------|--------------------------|
| Fiber Type<br>PTIG                | Core Diameter<br>(μm) | Clad Diameter<br>(μm)             | Coating Diameter<br>(μm) |
| 50/125/250SA20                    | 50                    | 125                               | 250                      |

# High Temperature Fiber

## Graded Index Core High Temperature Fiber



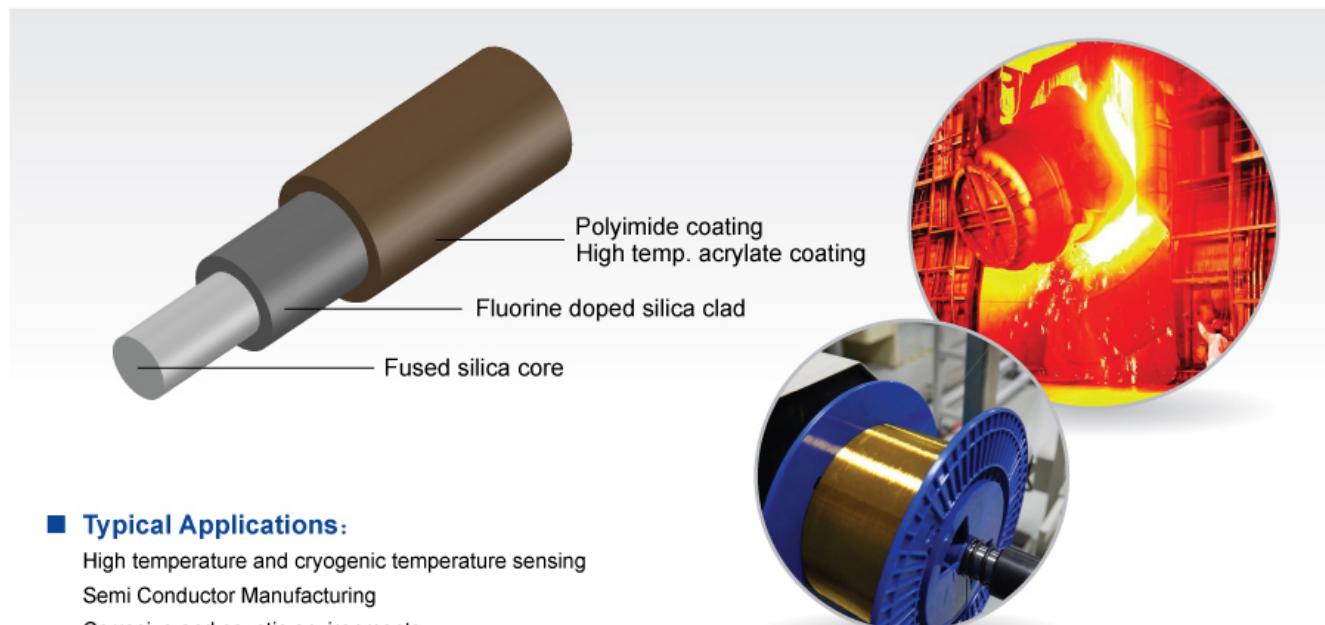
### ■ Typical Applications

High temperature and cryogenic temperature sensing  
 Semiconductor Manufacturing  
 Corrosive and caustic environments  
 Ultra high vacuum devices  
 Rocket turbine and jet engine monitoring

| Polyimide Coating                 |                       | Working Temperature: -60 ~ +350°C  |                          |
|-----------------------------------|-----------------------|------------------------------------|--------------------------|
| Fiber Type<br>PTUG                | Core Diameter<br>(µm) | Clad Diameter<br>(µm)              | Coating Diameter<br>(µm) |
| 50/125/155P20                     | 50                    | 125                                | 155                      |
| 62.5/125/155P27                   | 62.5                  | 125                                | 155                      |
| High Temperature Acrylate Coating |                       | Working Temperature: -40 ~ +150°C  |                          |
| Fiber Type<br>PTUG                | Core Diameter<br>(µm) | Clad Diameter<br>(µm)              | Coating Diameter<br>(µm) |
| 50/125/250SA20                    | 50                    | 125                                | 250                      |
| 62.5/125/250SA27                  | 62.5                  | 125                                | 250                      |
| Gold Coating                      |                       | Working Temperature: -270 ~ +700°C |                          |
| Fiber Type<br>PTUG                | Core Diameter<br>(µm) | Clad Diameter<br>(µm)              | Coating Diameter<br>(µm) |
| 50/125/155G20                     | 50                    | 125                                | 155                      |
| 62.5/125/155G27                   | 62.5                  | 125                                | 155                      |

# High Temperature Fiber

## Silica Core (Step Index) High Temperature Fiber



### ■ Typical Applications:

- High temperature and cryogenic temperature sensing
- Semi Conductor Manufacturing
- Corrosive and caustic environments
- Radiation resistant sensors

| Polyimide Coating       |                       | Working Temperature: -60 ~ +350°C |                          |
|-------------------------|-----------------------|-----------------------------------|--------------------------|
| Fiber Type<br>PTIU/PTUU | Core Diameter<br>(μm) | Clad Diameter<br>(μm)             | Coating Diameter<br>(μm) |
| 50/125/145P22           | 50                    | 125                               | 145                      |
| 100/110/130P22          | 100                   | 110                               | 130                      |
| 105/125/155P22          | 105                   | 125                               | 155                      |
| 200/220/250P22          | 200                   | 220                               | 250                      |
| 300/330/360P22          | 300                   | 330                               | 360                      |
| 400/440/470P22          | 400                   | 440                               | 470                      |
| 600/660/690P22          | 600                   | 660                               | 690                      |

| High Temperature Acrylate Coating |                       | Working Temperature: -40 ~ +150°C |                          |
|-----------------------------------|-----------------------|-----------------------------------|--------------------------|
| Fiber Type<br>PTIU/PTUU           | Core Diameter<br>(μm) | Clad Diameter<br>(μm)             | Coating Diameter<br>(μm) |
| 50/125/250SA22                    | 50                    | 125                               | 250                      |
| 60/125/250SA22                    | 60                    | 125                               | 250                      |
| 100/140/250SA22                   | 100                   | 140                               | 250                      |
| 105/125/250SA22                   | 105                   | 125                               | 250                      |
| 200/220/320SA22                   | 200                   | 220                               | 320                      |
| 400/440/625SA22                   | 400                   | 440                               | 625                      |
| 600/660/960SA22                   | 600                   | 660                               | 960                      |

# High Temperature Fiber

## Single-Mode High Temperature Fiber



### ■ Typical Applications

- High temperature and cryogenic temperature sensor
- Semiconductor manufacturing
- Corrosive environment
- Oil and gas well downhole sensor
- Ultra high vacuum equipment
- Radiation sensor

| Fiber Type                                | PTSB1310SA245              | PTSB1310P155 | PTMB1310P100 |
|---|----------------------------|--------------|--------------|
| <b>Optical Parameters</b>                 |                            |              |              |
| mode field diameter @1310nm (μm)          | 9.2±0.4                    | 9.2±0.4      | 8.8±0.4      |
| mode field diameter @1550nm (μm)          | 10.4±0.8                   | 10.4±0.8     | 9.8±0.5      |
| Cutoff (nm)                               | 1180~1330                  | 1180~1330    | 1180~1330    |
| Attenuation @1310nm (dB/km)               | ≤0.4                       | ≤1           | ≤1           |
| Attenuation @1550nm (dB/km)               | ≤0.25                      | ≤0.8         | ≤0.8         |
| <b>Geometrics Parameters</b>              |                            |              |              |
| Clad Diameter (μm)                        | 125.0±1.0                  | 125.0±2.0    | 80.0±3.0     |
| Coating Diameter (μm)                     | 245.0±10.0                 | 155.0±5.0    | 100.0±5.0    |
| Clad Non-circularity (%)                  | ≤1                         | ≤1           | ≤1           |
| Core/Clad Offset (μm)                     | ≤0.8                       | ≤0.8         | ≤0.8         |
| Coating/Clad Offset (μm)                  | ≤12                        |              |              |
| <b>Material and Mechanical Parameters</b> |                            |              |              |
| Coating Material                          | High Temp. Acrylate        | Polyimide    | Polyimide    |
| Proof Test Level (ksi)                    | 100                        | 100          | 100          |
| Working Temperature (°C)                  | -40 ~ +150; Short time+200 | -60 ~ +350   | -65 ~ +350   |