

# Product Specifications


## Product No: Part# FF-HSN1.0

### 1. Scope

This specification covers basic requirements for the structure and optical performances of FF-HSN1.0.

Side Emitting Fiber, 1.0 mm dia. Fiber, Exterior appearance clear

### 2. Structure

|  |   |
|--|---|
| Product parameter<br>Fiber Core Material: PMMA<br>Fiber Cladding Material: Fluorinated Polymer<br>Core refractive index: 1.491<br>Cladding refractive index: 1.363<br>Numerical Aperture: 0.5<br>Minimum Bend Radius: 10mm |  |
|--|---|

### 4. Specifications:

|                            | Item                              | Unit | Technical Parameters | Test   |
|----------------------------|-----------------------------------|------|----------------------|--|
| Structural parameters      | Core diameter                     | μm   | 985±60               | IEC 60793-1-20                                 |
|                            | Cladding diameter                 | μm   | 1000±60              |  |
|                            | Cladding non-circularity          | %    | ≤6                   |  |
|                            | Approximate Weight                | g/m  | 1                    |  |
| Optical properties         | Transmission Loss                 | dB/m | ≤0.2                 | 650nm<br>IEC 60793-1-40                        |
|                            | Transmission Loss Under 95%RH     | dB/m | ≤0.2                 |  |
| Mechanical Characteristics | Tensile Strength                  | N    | ≥56                  | IEC 60068-1                                    |
| Environmental Performance  | Storage and Operating Temperature | ℃    | -55~+85              | No Physical Deterioration and Optical Property |
|                            | Recommended Operating Temperature | ℃    | -40~+70              | No Deterioration In Optical Properties         |
|                            | Installation Temperature          | ℃    | -20~+70              | No Deterioration In Optical Properties         |