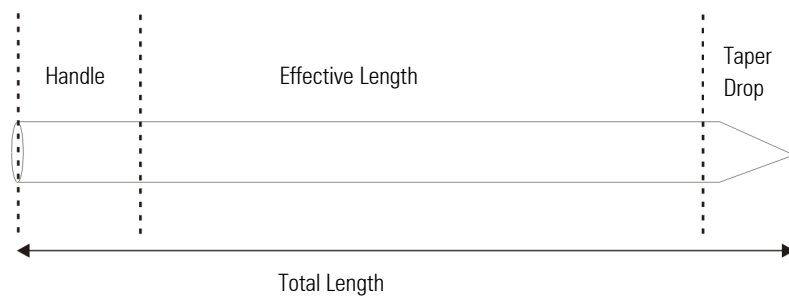


Multimode Preform 50/125

Characteristics

	Spec. Value	Unit
Core Composition	SiO ₂ /GeO ₂	
Refractive Index Profile	nearly parabolic	
Refractive Index Delta	13.7 x 10 ⁻³	
Tolerance of Delta within a Rod	2.0 x 10 ⁻³	
Numerical Aperture	0.200 ± 0.015	
Preform Diameter (O.D.)	39.0	mm
Tolerance of O.D. from Rod to Rod	± 2.0	mm
Tolerance of O.D. within a Rod	± 0.5	mm
Preform Length	600 - 1200	mm
Preform Bow	≤ 0.7	mm/m
Preform Non-Circularity	≤ 1.0	%
Clad Concentricity Error of O.D.	≤ 1.2	%

Design



- The drop end (Taper Drop) is formed as a cone and the "handle end" is a tube with the same diameter as the preform.

$$O.D._{handle} = O.D._{preform}$$

For further information about our Multimode Preforms and other j-fiber products and services, please contact us:

j-fiber GmbH
 Im Semmicht 1
 D-07751 Jena, Germany
 Tel.: +49-3641-352 100
 Fax: +49-3641-352 101
 Email: info@j-fiber.com
 Internet: www.j-fiber.com

Appearance

The general appearance shall be dustfree and flawless. There shall be no bubbles in the core. Bubbles in the cladding shall be permitted but the number and size(s) of the bubbles shall not exceed the values stipulated in the table below. There shall be no substantial surface damage or contamination.

Bubble Size s/mm

		Acceptable Number per Preform
In the core		not allowed
In the cladding	$s \leq 0.3$	no count
	$0.3 < s \leq 0.8$	5
	$0.8 < s \leq 2.0$	2
	$s > 2.0$	0

Mass

- Chargeable mass (m) is calculated with the formula:

$$m[g] = 2.2 \times 3.14 \times (\text{outer diameter [cm]}/2)^2 \times (\text{effective length [cm]})$$

2.2 = specific weight of SiO₂ [g/cm³]

- The "effective length" is the length of that part of the preform where every parameter is within stated preform specifications.

Target Fiber Specifications

	Specified Values	Unit
Core Diameter	50 ± 2.5	μm
Core Non-Circularity	≤ 5.0	%
Core/Clad Concentricity Error	≤ 1.5	μm
Cladding Diameter	125 ± 2.0	μm
Cladding Non-Circularity	≤ 1.0	%
Attenuation	850nm	≤ 2.4
	1300nm	≤ 0.6
	1383nm	≤ 2.0
Bandwidth ¹	850nm	≥ 500
	1300nm	≥ 600

¹A minimum of 70% of the fiber output is expected to meet the target fiber specifications.

Other band width combinations are available on request.

j-fiber does not guarantee the following parameters as they are dependent upon individual draw conditions:

- fiber yield
- fiber strength

Expected Fiber Length

The expected fiber length (L[km]) assuming a 100% drawing yield can be calculated using the following formula:

$$L[\text{km}] = \{(d[\text{mm}]/0.125)^2 \times e[\text{mm}]\} \times 10^{-6}$$

d=preform diameter

e=effective length

Inspection Documents

Preform ID	Length of Handle End
Mass	Diameter Typical
Effective Length	Diameter Max
Length of Drop End	

The inspection documents will be supplied with each shipment. The preform data can also be transmitted electronically and precede each shipment (MS Windows, floppy disk, email etc.)

Packaging

Every preform is individually packaged as such to withstand normal transportation hazards and handling.

Each preform is identified by an ID number written on an adhesive label.

Ordering Information

To order j-fiber optical preform please call, fax or email us and specify the following parameters:

Preform Type:	j-fiber Multimode Preform 50/125
Preform Diameter:	39.0mm
Preform Quantity:	kg
Other:	desired ship date, special requests

All fibers and preforms are subject to j-fiber's ongoing process and quality improvement programs ensuring excellent performance and high reliability. We reserve the right to make changes to the above specification without notice.

DB-PN-001-01-0607 Issued June 2007

Copyright 2007 © j-fiber GmbH



Officially registered facility according to EWG No. 761/2001