# GRADED-INDEX FIBERS

## Features

· Standard communication fibers for 850 nm and 1300 nm
· Low loss, high bandwidth
· Laser power transmission fibers up to 600 µm core diameter
· Better beam profile than step index fibers
· Specialty coatings for high temperatures, high vacuum and harsh chemicals environments
· Radiation resistant type


## Fiber-Design

| | |
|---|---|
| · Communication fibers: | Doped fused silica core (graded-index) |
| | Pure fused silica cladding |
| | Dual layer Acrylate coating (-40°C to 85°C) |
| · Power transmission fibers: | Doped fused silica core (graded-index) |
| | Pure fused silica cladding |
| | Acrylate coating (-40°C to 85°C) |
| | Silicone resin coating (-40°C to 150°C) |
| | Polyimide coating (-190°C to 385°C) |

## Properties

| | |
|---|---|
| · Proof test level (Screen test): | 50 kpsi (Communiction fibers) |
| · Proof test level (Bend method): | 70 kpsi (Fiber diameter > 200 µm) |
| · Bend radius: | momentary 100 times the fiber radius |
| | long term 600 times the fiber radius |

## Options

· Core/clad ratios 1.1, 1.2
· Metal coating
· Jacket: Nylon (-40°C to 100°C)
ETFE (-200°C to 150°C)
· Connectors (DIN, FC/PC, ST, SMA)
· Graded-index fiber cables

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| ACRYLATE COATED FIBERS (-40°C to 85°C) | Product code | Core (µm) ± 2% | Cladding(µm) ±2% | Coating (µm) ± 5% | Coating Material | NA ± 0.015 |
|---|---|---|---|---|---|---|
| | G 100/140A | 100 | 140 | 200 | Acrylate | 0.290 |
| | G 200/280A | 200 | 280 | 450 | Acrylate | 0.290 |
| | G 400/560A | 400 | 560 | 700 | Acrylate | 0.290 |
| | G 600/840A | 600 | 840 | 1000 | Acrylate | 0.290 |

| POLYIMIDE COATED FIBERS (-190°C to 385°C) | Product code | Core (µm) ± 3 µm | Clad (µm) ± 3 µm | Coating (µm) ± 3 µm | NA ± 0.015 | Attenuation 850/ 1300 nm (dB/km) | Bandwidth 850/ 1300 nm (MHz*km) |
|---|---|---|---|---|---|---|---|
| | G 50/125PI | 50 | 125 | 140 | 0.200 | <2.8/0.9 | >400/1200 |
| | G 62.5/125PI | 62.5 | 125 | 140 | 0.275 | <3.3/1.0 | >200/600 |
| | G 85/125PI | 85 | 125 | 140 | 0.260 | <3.3/1.0 | >200/200 |
| | G 100/140PI | 100 | 140 | 155 | 0.290 | <4.0/1.5 | >200/200 |
| | G 200/280PI | 200 | 280 | 300 | 0.290 | | |
| | G 400/560PI | 400 | 560 | 580 | 0.290 | | |

| COMMUNICATION FIBERS (-190°C to 385°C) | Product code | Core (µm) ± 3 µm | Clad (µm) ± 3 µm | Coating (µm) ± 3 µm | NA ± 0.015 | Attenuation 850/ 1300 nm (dB/km) | Bandwidth 850/ 1300 nm (MHz*km) |
|---|---|---|---|---|---|---|---|
| | G 50/125 | 50 | 125 | 250 | 0.200 | <2.5/0.6 | >400/1200 |
| | G 62.5/125 | 62.5 | 125 | 250 | 0.275 | <3.0/0.7 | >200/600 |
| | G 85/125 | 85 | 125 | 250 | 0.260 | <3.0/0.7 | >200/200 |
| | G 100/140 | 100 | 140 | 250 | 0.290 | <3.5/1.0 | >200/200 |

## OTHER SPECIFICATIONS UPON REQUEST.

Fibers are delivered on spools, without CE marking.