

# ALTOS® RD All-Dielectric Cables, 300-432 Fibers

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## Features and Benefits

### Reduced-diameter (RD) cable

Results in economical use of duct space and facilitates installation

### All-dielectric cable construction

Requires no grounding or bonding

### Innovative waterblocking technology

Eliminates the need for traditional flooding compound and provides efficient and craft-friendly cable preparation

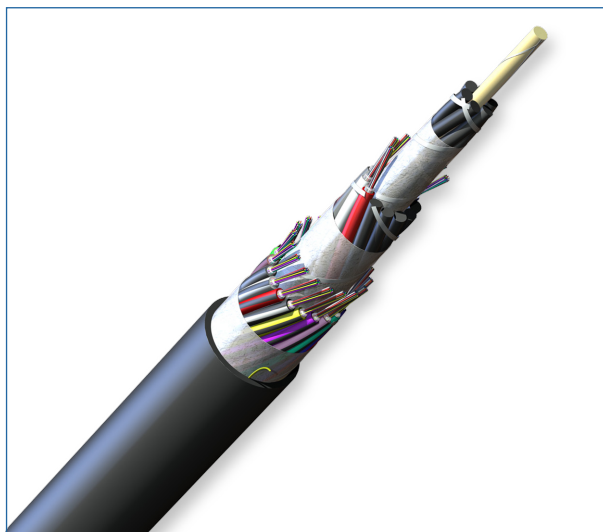
### Medium-density polyethylene jacket

Rugged, durable and easy to strip (while providing superior protection against UV radiation, fungus, abrasion and other environmental factors)

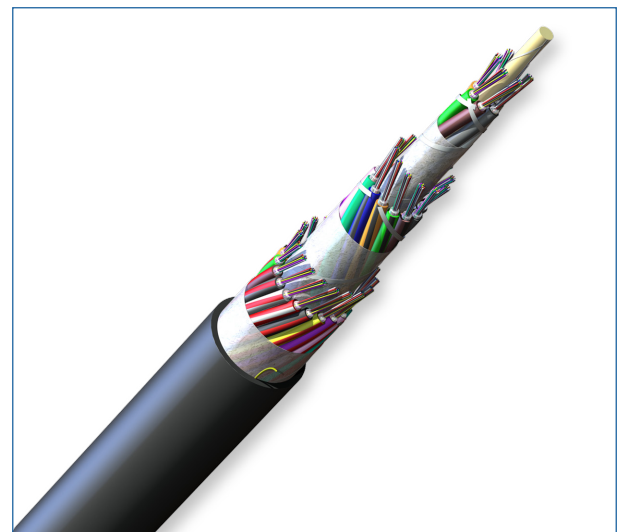
Corning ALTOS® RD all-dielectric cables are lightweight, reduced-diameter loose tube cables designed for duct and aerial (lashed) installation. The loose tube design provides stable performance over a wide temperature range and is compatible with any telecommunications-grade optical fiber.

## Standards

Design and Test Criteria      ANSI/ICEA S-87-640  
                                                 Telcordia GR-20  
                                                 RDUP PE-90



**ALTOS RD All-Dielectric Cables, 300 Fibers**  
| Photo PIM1381

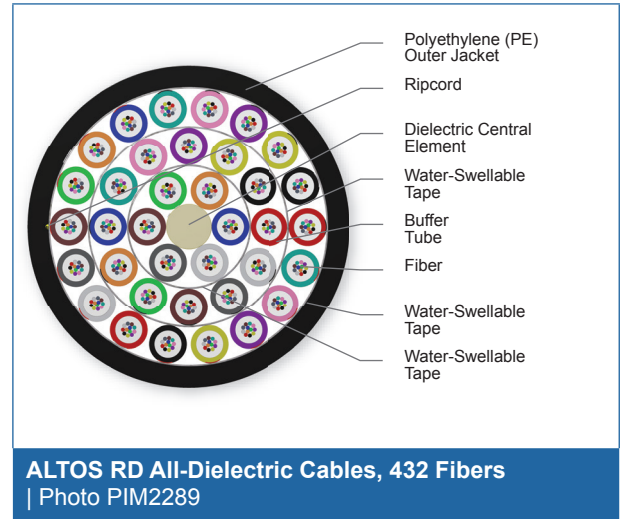
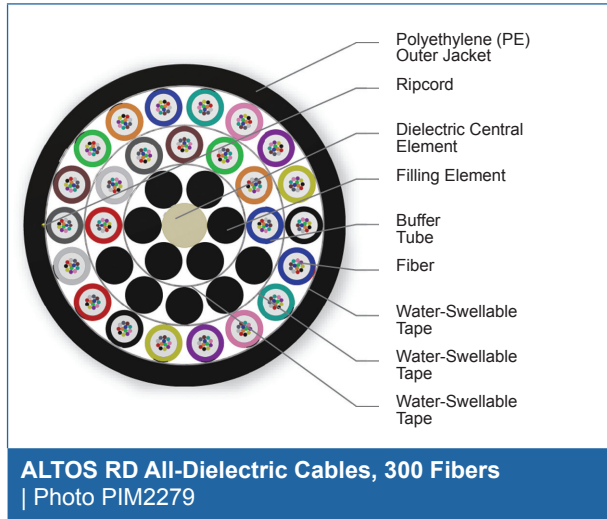


**ALTOS RD All-Dielectric Cables, 432 Fibers**  
| Photo PIM1391

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## Specifications

| Temperature Range |                                    |
|-------------------|------------------------------------|
| Storage           | -40 °C to 70 °C (-40 °F to 158 °F) |
| Installation      | -30 °C to 70 °C (-22 °F to 158 °F) |
| Operation         | -40 °C to 70 °C (-40 °F to 158 °F) |

\* Note: Corning recommends storing cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

|                                   |                  |
|-----------------------------------|------------------|
| Max. Tensile Strength, Short-Term | 2700 N (600 lbf) |
| Max. Tensile Strength, Long-Term  | 890 N (200 lbf)  |

| Mechanical Characteristics Cable |              |                         |                          |                        |                            |                        |                               |                            |
|----------------------------------|--------------|-------------------------|--------------------------|------------------------|----------------------------|------------------------|-------------------------------|----------------------------|
| Fiber Count                      | Product Type | Maximum Fibers per Tube | Number of Tube Positions | Number of Active Tubes | Weight                     | Nominal Outer Diameter | Min. Bend Radius Installation | Min. Bend Radius Operation |
| 300 - 432                        | Dielectric   | 12                      | 36                       | 25 - 36                | 233 kg/km (156 lb/1000 ft) | 21.4 mm (0.84 in)      | 321 mm (12.6 in)              | 214 mm (8.4 in)            |

\* Notes:

\* Tubes 13 to 24 include a co-extruded stripe that is white for the black tube and black for all other tube colors.

\* Tubes 25 to 36 include a co-extruded stripe that is white for the red tube and red for all other tube colors.

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## Chemical Characteristics

|      |                                                           |
|------|-----------------------------------------------------------|
| RoHS | Free of hazardous substances according to RoHS 2002/95/EG |
|------|-----------------------------------------------------------|

## Transmission Performance

| Multimode                                        |          |          |          |          |
|--------------------------------------------------|----------|----------|----------|----------|
| Fiber Core Diameter (μm)                         | 62.5     | 50       | 50       | 50       |
| Fiber Category                                   | OM1      | OM2      | OM3      | OM4      |
| Fiber Code                                       | K        | T        | T        | T        |
| Performance Option Code                          | 30       | 31       | 80       | 90       |
| Wavelengths (nm)                                 | 850/1300 | 850/1300 | 850/1300 | 850/1300 |
| Maximum Attenuation (dB/km)                      | 3.4/1.0  | 3.0/1.0  | 3.0/1.0  | 3.0/1.0  |
| Serial 1 Gigabit Ethernet (m)                    | 300/550  | 750/500  | 1000/600 | 1100/600 |
| Serial 10 Gigabit Ethernet (m)                   | 33/-     | 150/-    | 300/-    | 550/-    |
| Min. Overfilled Launch (OFL) Bandwidth (MHz*km)  | 200/500  | 700/500  | 1500/500 | 3500/500 |
| Minimum Effective Modal Bandwidth (EMB) (MHz*km) | 220/-    | 950/-    | 2000/-   | 4700/-   |

\* Single-mode (OS2) fiber is ITU-T G.652.D compliant.

Notes: 1) Improved attenuation and bandwidth options available.  
 2) Bend-insensitive single-mode fibers available on request.  
 3) 50 μm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.  
 4) Contact a Corning Customer Care Representative for additional information.

| Single-mode                  |                 |                 |
|------------------------------|-----------------|-----------------|
| Fiber Name                   | SMF-28e+® fiber | SMF-28e+® fiber |
| Fiber Category               | G.652.D         | G.652.D         |
| Fiber Code                   | E               | E               |
| Performance Option Code      | 01              | 00              |
| Wavelengths (nm)             | 1310/1383/1550  | 1310/1383/1550  |
| Maximum Attenuation (dB/km)  | 0.4/0.4/0.3     | 0.35/0.35/0.25  |
| Typical Attenuation* (dB/km) | 0.33/0.33/0.19  | 0.33/0.33/0.19  |

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**Ordering Information** | *Note: Contact Customer Care at 1-800-743-2675 for other options.*

|                      |                      |                      |                      |          |          |          |          |                      |           |                      |                      |   |   |   |
|----------------------|----------------------|----------------------|----------------------|----------|----------|----------|----------|----------------------|-----------|----------------------|----------------------|---|---|---|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | W        | 4        | -        | T        | <input type="text"/> | 1         | <input type="text"/> | <input type="text"/> | N | 2 | 0 |
| <b>1</b>             | <b>2</b>             | <b>3</b>             | <b>4</b>             | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b>             | <b>10</b> |                      |                      |   |   |   |

**1** Select fiber count.  
Standard offerings:  
300-432  
Increments of 12

**2** Select fiber code.  
K = 62.5 µm multimode (OM1)  
T = 50 µm multimode, (OM2/OM3/OM4)  
E = Single-mode (OS2)  
SMF-28e+® fiber

**3** Defines cable type.  
W = ALTOS® RD Cable

**4** Defines outer jacket.  
4 = All-dielectric

**5** Select fiber placement.  
T = 12 fibers/buffer tube (standard)

**6** Defines length markings.  
3 = Markings in meters  
4 = Markings in feet (standard)

**7** Defines tensile strength.  
1 = 2700 N/600 lbf (standard)

**8** Select performance option code.  
30 = 62.5 µm multimode (OM1)  
31 = 50 µm multimode (OM2)  
80 = 50 µm multimode (OM3)  
90 = 50 µm multimode (OM4)  
01 = Single-mode (OS2)  
(Max. attenuation 0.4/0.4/0.3 dB/km)  
00 = Single-mode (OS2)  
(Max. attenuation 0.35/0.35/0.25 dB/km)

**9** Defines cable type.  
N = ALTOS RD Cable

**10** Defines special manufacturing code.  
20 = No special requirements



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