

# 3M™ Fibrlok™ Splices

## Make virtually any-kind, anywhere fiber connections.

Indoor and outdoor. 250 µm singlemode/900 µm multimode, mixed and matched. 3M Fibrlok splices 2529 offer enhanced versatility for fiber connections in a variety of settings:

- **Wireless** – secures stable connections at the Base Band Unit, Remote RF Unit or in-building DAS.
- **Outside Plant** – convenient for cabinets, terminals, and other closures. Mounts discreetly inside.
- **Structured Cabling** – augment riser cable or POL with permanent splices.
- **Fiber-to-the-home** – mount in a Network Integrated Device outside of a building or secure the last meter of fiber pigtail inside the living unit.

Using a metallic splicing element held inside a molded plastic body and cap, Fibrlok splices provide a fast and permanent fiber connection. Index matching gel helps enable a low loss optical performance that helps maintain



3M™ Fibrlok™ II Universal Optical Fiber Splice 2529



3M™ Fibrlok™ II Fiber Splice Holder 2539  
\*(3M™ Fibrlok™ II Universal Optical Fiber Splice 2529 Sold Factory-installed)

| Features                         | Benefits  |
|----------------------------------|---|
| < 0.1 dB typical insertion loss  | High performance, permanent splices                   |
| Minimum tooling requirements     | Low capital cost                                      |
| No epoxy or electricity required | Easy field installation                               |
| Simple, easy to use              | Minimal training, lower total cost of install         |
| Wide operating temperate range   | Ideal for indoor and outdoor splicing applications    |
| Small form factor of 2540G       | Suitable for 250 µm fiber splicing in a fiber closure |

signal transmission quality. Plus, the 3M™ Fibrlok™ Splice assembly process requires only few steps in addition to standard fiber preparation: just properly position the cleaved fiber strains and actuate the splice with a simple tool.

From network rehabilitations to new constructions, the mechanical splices are a strong asset. Fibrlok splices provide a secure, permanent solution for repairs. When rolling out a new network, their fast installation time and minimal, non-electric tooling can keep your project moving without upfront capital investments on tooling such as fusion splice machines.

3M first introduced Fibrlok splices to the market more than two decades ago and now the v-groove precision-splicing technology is widely used in the industry. Today, Fibrlok splices include a full product family of splices and accessories including flat splices: 2529 and 2540G, angle splices: 2529-AS and 2540-AS, and adhesive-backed flat splice holder 2539.

### 3M™ Fibrlok™ Splices Family Overview

| Product Name | Flat/Angle Cleave | Fiber Size | Key Application Tool | Dimensions   | Full Installation Kit with blade cleaver |
|--------------|-------------------|------------|----------------------|--|--|
| 2529         | Flat              | 250/900 µm | 2501                 | 3.8 mm x 6.4 mm x 38.1 mm (0.15" x 0.25" x 1.50")                            | 2559-C                                   |
| 2529-AS      | Angled            | 250/900 µm | 2501-AS              | 3.8 mm x 6.4 mm x 38.1 mm (0.15" x 0.25" x 1.50")                            | 2565                                     |
| 2540G        | Flat              | 250 µm     | 2504G                | 4 mm x 4 mm x 36 mm (0.16" x 0.16" x 1.42")                                  | 2559-C                                   |
| 2540-AS      | Angled            | 250 µm     | 2501-AS              | 4 mm x 4 mm x 36 mm (0.16" x 0.16" x 1.42")                                  | 2565                                     |
| 2539         | Flat              | 250/900 µm | Not needed           | Dimension with splice holder: 12.9 mm x 12 mm x 66 mm (0.51" x 0.47" x 2.6") | 2559-C                                   |

### 3M™ Fibrlok™ Splices Specifications

| Product Number                                      | 2529          | 2539                       | 2540G         |
|---|---------------|----------------------------|---------------|
| <b>Fiber diameter</b>                               | 125 µm        | 125 µm                     | 125 µm        |
| <b>Coating diameter</b>                             | 250 or 900 µm | 250 or 900 µm Tight Buffer | 250 µm        |
| <b>Insertion loss (dB)<br/>Typical</b>              | < 0.1         | < 0.1                      | < 0.1         |
| <b>Reflectance (dB)<br/>Typical</b>                 | <-55          | <-55                       | <-55          |
| <b>Reflectance over operating temperature range</b> | <-35          | <-35                       | <-35          |
| <b>Operating temperature range</b>                  | -40°C to 75°C | -40°C to 75°C              | -40°C to 75°C |
| <b>Storage temperature</b>                          | -40°C to 75°C | -40°C to 75°C              | -40°C to 75°C |

## 3M™ Fibrlok™ Angle Splices Specifications

| Product Number                                      | 2529-AS           | 2540G-AS      |
|---|-------------------|---------------|
| <b>Fiber diameter</b>                               | 125 µm            | 125 µm        |
| <b>Coating diameter</b>                             | 250 µm and 900 µm | 250 µm        |
| <b>Insertion loss (db)<br/>Typical</b>              | < 0.1             | < 0.1         |
| <b>Reflectance (dB)<br/>Typical</b>                 | <-65              | <-65          |
| <b>Reflectance over operating temperature range</b> | <-60              | <-60          |
| <b>Operating temperature range</b>                  | -40°C to 70°C     | -40°C to 70°C |
| <b>Storage temperature</b>                          | -40°C to 70°C     | -40°C to 70°C |

## 3M™ Fibrlok™ Splices Ordering Information

| Product Number | Description   | Packaging         | Min. Order | 3M ID          |
|----------------|---|-------------------|------------|----------------|
| <b>Splices</b> |   |                   |            |                |
| 2529           | Fibrlok II Universal Optical Fiber Splice for 250 and 900 µm fiber        | 6/pkg. 10 pkg/cs. | 60 each    | 80-6107-5589-6 |
| 2529-AS        | Fibrlok II Angle Fiber Splice   | 60/package        | 60 each    | 80-6113-2737-2 |
| 2540G          | Fibrlok 250 µm Fiber Splice for 250 µm fiber                              | 5/pkg. 12 pkg/cs. | 60 each    | JE-4200-9482-1 |
| 2540-AS        | Fibrlok 250 µm Angle Fiber Splice   | 60/package        | 60 each    | JE-4200-8435-0 |
| 2539           | Fibrlok II Splice/Holder, integrated actuation tool, and holder with tape | 1/pkg. 60 pkg/cs. | 60 each    | 80-6113-2005-4 |

### Assembly Tools

|         |  |       |         |                |
|---------|--|-------|---------|----------------|
| 2501    | Required for Fibrlok II Splice 2529              | 1/cs. | 1 each  | 80-6105-8187-0 |
| 2504G   | Required for Fibrlok Splice 250 µm 2540G         | 1/cs. | 1 each  | JE-4200-8318-8 |
| 2501-AS | Required for Fibrlok Splices 2529-AS and 2540-AS | 1/cs. | 1 each  | 80-6113-2424-7 |
| 2506    | Fibrlok™ II Cap-lifter Tool                      | 1/cs. | 25 each | 80-6107-4784-4 |

## 3M™ Fibrlok™ Installation Kits

| Product Number | Description                         | Packaging | Min. Order | 3M ID          |
|----------------|-------------------------------------|-----------|------------|----------------|
| 2559           | Splice Kit without cleaver          | 1/cs.     | 1 each     | 80-6113-2375-1 |
| 2559-C         | Splice Kit with Cleaver             | 1/cs.     | 1 each     | 80-6113-2376-9 |
| 2565           | Angle Splice Kit with Angle Cleaver | 1/cs.     | 1 each     | 80-6113-2508-7 |



3M™ Fibrlok™ Installation Kit with Cleaver 2559-C



3M™ Fiber Optic Angle Cleaver Kit 2565

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