# 3M<sup>™</sup> Fibrlok<sup>™</sup> Single Fiber Optical Splicing System 2500 Series



3M<sup>™</sup> Fibrlok<sup>™</sup> optical splice is a leading mechanical splice and is specified in fiber-to-thepremises projects as a substitute for fusion splicing. It provides a precise, simple and low-cost method of splicing optical fibers without electrical power. The Fibrlok splicing system is designed to minimize the need for lengthy training, specialized skills or experience.

Fibrlok single fiber optical splices utilize a metallic splicing element held inside a molded plastic body and cap to provide a fast, permanent splice. Index matching gel at the fiber splice interface enables a low-loss splice that maintains transmission quality over the life of the network. Assembly of the inexpensive Fibrlok splice requires only removal of the fiber coating, and cleaning and cleaving of the fiber.

3M offers three different configurations of single fiber splices to meet different application needs, Fibrlok II for 250µm or 900µm splices, Fibrlok 250µm for 250µm splices, and Fibrlok II Splice/Holder which eliminates the need for a separate assembly tool by integrating the Fibrlok II splice, tool and tray together.

8.2

## 3M<sup>™</sup> FIBRLOK<sup>™</sup> SINGLE FIBER OPTICAL SPLICING **SYSTEM 2500**

## **3M Fibrlok II Universal Optical Fiber Splice 2529**

The 2529 optical fiber splice has successfully spliced any combination of 250µm and 900µm singlemode or multimode fibers for over 15 years. Utilizing the rugged, low cost 2501 assembly tool, the 2529 can be installed for any indoor or outdoor application.

## **3M Fibrlok II Splice/Holder 2539**

The 2539 integrates the 3M Fibrlok II splice 2529, actuation tool, and holder all in one package. It enables fast, on-site installation without a separate assembly tool or splice tray. Very high bond tape on the bottom of the splice/holder permanently holds it at the splice location. The Fibrlok II splice/holder is also available with a pre-terminated SC/APC or SC/UPC pigtail for easy installation.

## 3M Fibrlok 250µm Splice 2540G

The 2540G splice enables fast, easy splicing of 250µm singlemode and multimode fiber for all splice installations, including fiber-to-the-premises. Using the small, rugged 2504G assembly tool, it can be installed in any environment whether it is an aerial application or inside a building.

## FEATURES

< 0.1dB insertion loss
30 second installation time
Minimum tooling requirements
No epoxy or electricity required
Simple, easy to use
Strong fiber retention

# BENEFITS

High performance, permanent splices
Increased productivity
Low capital cost
Easy on-site installation
Minimal training, lower installed cost
Virtually no fiber movement



8.3





# 3M<sup>™</sup> FIBRLOK<sup>™</sup> SINGLE FIBER OPTICAL SPLICING SYSTEM 2500

#### **SPECIFICATIONS**

#### **3M FIBRLOK SINGLE FIBER OPTICAL SPLICES**

	2529	2539	2540G
Dimensions	3.8mm x 6.4mm x 38.1mm (0.15" x 0.25" x 1.50")	12.9mm x 12.0mm x 66.0mm (0.51" x 0.47" x 2.60")	4mm x 4mm x 36mm (0.16" x 0.16" x 1.42")
Fiber Diameter	125µm	125µm	125µm
Coating Diameter	250 or 900µm	250 or 900μm Tight Buffer	250µm
Installation Time	< 30 seconds after fiber preparation	< 30 seconds after fiber preparation	< 30 seconds after fiber preparation
Mean Insertion Loss	< 0.1dB	< 0.1dB	< 0.1dB
Return Loss	< -40dB Typical	< -40dB Typical	< -40dB Typical
Tensile Strength	4.4N (1.0 lbf) Minimum	4.4N (1.0 lbf) Minimum	4.4N (1.0 lbf) Minimum
Operating temperature	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)	-40°C to 75°C (-40°F to 167°F)
Material	Engineering thermoplastic with aluminum alloy element and index matching gel	Engineering thermoplastic with aluminum alloy element, index matching gel and VHB tape	Engineering thermoplastic with alloy element and index matching gel

### **ORDERING INFORMATION**

#### **3M FIBRLOK SINGLE FIBER OPTICAL SPLICES**

PRODUCT NUMBER	DESCRIPTION	PKG.	MIN. ORDER	UPC 054007-
Splices				
2529	Fibrlok II universal optical fiber splice for 250 and 900 $\mu m$ fiber	6/pkg, 10 pkg/cs.	60 each	92202
2529-K	2529 Fibrlok II splices with assembly tool (60 splices, one 2501 assembly tool)	1 kit/cs.	1 kit	92415
2539	2529 Fibrlok II splice, integrated actuation tool, and holder with tape	1/pkg, 60 pkg/cs.	60 each	21516*
2539 SC/APC	2539 Fibrlok II splice/holder with 0.75m (30") SC/APC connector pigtail	1/pkg, 12 pkg/cs.	12 each	22860*
2539 SC/UPC	2539 Fibrlok II splice/holder with 0.75m (30") SC/UPC connector pigtail	1/pkg, 12 pkg/cs.	12 each	22861*
2540G	Fibrlok 250µm fiber splice for 250µm fiber	5/pkg, 12 pkg/cs.	60 each	22685*
Assembly Tools				
2501	Required for Fibrlok II 2529	1/cs.	1 each	57125
2504G	Required for Fibrlok 250µm 2540G	1/cs.	1 each	22686*
*UPC prefix 05111	5-			

## 3M<sup>™</sup> FIBRLOK<sup>™</sup> SINGLE FIBER OPTICAL SPLICING SYSTEM 2500

#### 3M Fibrlok Splice Kit with Cleaver 2559-C

The Fibrlok splice kits are available with (2559-C) and without (2559) a fiber cleaver and contain all the materials needed to terminate Fibrlok splices whether it be a singlemode or multimode splice. Detailed instructions are provided. Also included in the kits are the Fibrlok II assembly tool 2501 and Fibrlok 250µm assembly tool 2504G, simple-to-use tools designed for fast and easy installation.

Fibrlok splice kit with cleaver 2559-C contains the following components:

- Fibrlok II 2529 Splice Assembly Tool 2501
- Fibrlok 250µm Assembly Tool 2504G
- Fiber Cleaver 2534 (not included in 2559 kit)
- Fiber Stripping Tool 6365-ST
- Kevlar Snips (scissors) 6365-KS
- Lint free cloths (100/pkg.)
- Cleaning alcohol bottle
- Fibrlok II Splice 2529 (6 each)
- Fibrlok 250µm Splice 2540G (5 each)
- Fibrlok II Splice/Holder 2539 (2 each)

#### **ORDERING INFORMATION**

#### **3M FIBRLOK SPLICE KITS AND ACCESSORIES**

PRODUCT Number	DESCRIPTION	PKG.	MIN. ORDER	UPC 051115-
Kits				
2559-C	Fibrlok splice kit with fiber cleaver	1/cs.	1 each	25801
2559	Fibrlok splice kit without fiber cleaver	1/cs.	1 each	25800
Replacements for	or 3M Fibrlok Splice Kit			
2501	Required for Fibrlok II 2529	1/cs.	1 each	57125*
2504G	Required for Fibrlok 250µm 2540G	1/cs.	1 each	22686
2534	Fiber cleaver	1/cs.	1 each	25802
6365-ST	Stripping tool	1/cs.	1 each	16200
6365-KS	Kevlar snips	1/cs.	1 each	16202
05-00017	Lint free cloths, 4" x 4"	100/pkg.	1 pkg	48999*
*UPC prefix 054	007-			

