

# 3M Contractor Supplies for Wireless Infrastructure Builds





# Table of contents

<b>Tapes</b> .....	<b>4</b>
Vinyl Electrical Tapes.....	4
Wireless Tape Kits .....	6
Sealing, Padding & Shaping .....	8
Mastic Tapes.....	8
Self-Fusing Silicone Rubber Tapes .....	16
<b>Splicing and Insulating Solutions</b> .....	<b>18</b>
Cold Shrink .....	18
Heat Shrink .....	20
<b>Wire Identification &amp; Management Systems</b> .....	<b>22</b>
Wire Markers .....	22
Cable Ties .....	24
<b>Terminals</b> .....	<b>26</b>
<b>Gloves</b> .....	<b>28</b>

# Tapes

From the base to the top of the tower, ensuring the best connection is all in a day's work. 3M supports you with a full lineup of vinyl and mastic electrical tapes designed for outdoor use. Find what you need to face the elements, withstand high heat and corrosion and clearly identify your cabling at the cell site.

## **Scotch® Super 33+™ Vinyl Electrical Tape and Super 88**

## **Scotch® Vinyl Color Coding Electrical Tape 35**

### **Applications:**

- Insulate electrical connections up to 600V
- Protective cable jacketing
- Weatherproofing
- Harnessing of wires and cables
- Indoor and outdoor use

### **Product Highlights:**

- Resists abrasion, UV, moisture, alkalis, copper corrosion and varying weather conditions
- Good cold weather performance when applied in temperatures down to -18°C



- Scotch® Super 88 Tape offers a thicker backing for faster build-up / less wraps
- Scotch® Tape 35 is available in 9 fade-resistant colors
- Compatible with solid dielectric cable insulations, rubber and synthetic splicing compounds and epoxy and polyurethane resins
- UL listed and CSA certified
- Made in the USA

## **3M™ Temflex™ Vinyl Electrical Tape 1700**

### **Applications:**

- General purposes insulation for cable rated to 80°C
- Harnessing of wires and cables
- Indoor and/or enclosed use

### **Product highlights**

- Available in multiple colors
- Resists abrasion, UV, corrosion, and alkalis
- UL listed and CSA certified







# Wireless Weatherproofing Kits

From the base to the top of the tower, ensuring the best connection is all in a day's work. 3M supports you with a full lineup of vinyl and mastic electrical tapes designed for outdoor use. Find what you need to protect RF connections exposed to the elements, preventing moisture intrusion, which can lead to signal integrity issues and service disruptions.

## 3M™ Wireless Weatherproofing Kits WK-99, WK-100 and WK-101

### Applications

- Weatherproof seal at cell sites
- Cable-to-cable and cable-to-device
- General use and cold weather varieties
- Kit WK-101 designed for cold weather
- Kit WK-100 designed for standard indoor and outdoor applications
- Kits WK-99 designed for general use applications requiring less mastic



### Product Highlights:

- Includes self-fusing butyl mastic tape for moisture protection and vinyl tapes for added environmental and mechanical protection
- Excellent resistance to water, condensation and general weather conditions
- Compatible with a wide variety of cable sizes and device configurations
- ASTM certified

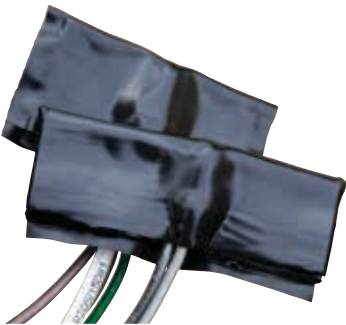






# Sealing, Padding & Shaping

The elements will put your connections to the test. Fight back with 3M and Scotch-brand Mastic Tapes. Engineered to keep water out, you can use them to pad sharp edges, make smooth transitions over irregular shapes. Plus, the extra, hand-moldable, padding stands up to environmental vibrations.



## Scotch® Vinyl Mastic Tape 2200

### Applications

- Seal-out moisture and insulate low-voltage connections in one easy step
- Pad and insulate bolted connections
- Insulate service drops
- Insulate lighting connections
- Help protect grounding rod connections
- End seal cables

### Product Highlights:

- Low Voltage
- Sealing and Padding
- Mechanical Protection
- Aggressive mastic provides an excellent bond
- Moisture sealing
- Vinyl backing eliminates the need to overwrap
- Material flow to cover punctures or cuts
- Made in the USA











## 3M™ Scotch-Seal™ Mastic Tape 2229

### Applications

- Electrically insulate and seal-out moisture from low-voltage connections
- Pad sharp edges of a low-voltage connection to prevent cut-through of vinyl tape overwrap
- Smooth transitions of irregular shapes

### Product Highlights:

- For sealing, padding and shaping
- Material flows to cover punctures or cuts
- Excellent moisture sealing capabilities
- Aggressive mastic provides excellent bond
- Made in the USA













## 3M™ Scotchfil™ Electrical Insulation Putty

### Applications

- Build-up cable splices and fill out major irregularities and voids in low-voltage splices to create a uniform base for further taping
- Smooth bus bar irregularities, round out connections, and pad sharp edges
- Create a moisture seal in multiconductor cable connections

### Product Highlights:

- Low Voltage
- Sealing and Padding
- Noncorrosive, synthetic rubber
- Easy to mold and shape by hand down to 32°F (0°C)
- Excellent aging properties - will not dry out
- Made in the USA











## Scotch® Rubber Mastic Tape 2228

### Applications

- Insulate electrical connections up to 1,000 V
- Seal-out moisture from connections

### Product Highlights:

- High Voltage
- Sealing and Padding
- Self-fusing material creates a moisture tight seal
- Flexible and conformable over irregular shapes
- Rated for 90°C continuous operating temperature and overload temperatures up to 130°C
- Made in the USA



## Scotch® Self-Fusing Silicone Rubber Electrical Tape 70 and 70 HDT\*

### Applications

- Pre-wrap low- and medium-voltage connections for clean re-entry, (e.g. motor lead connections or split-bolt connectors)
- Protects connections from heat caused by cable vibration

### Product Highlights:

- Low Voltage
- Clean re-entry
- Triangular tapered edge profile and a blue guideline to make half-lapping application easier\*









# Splicing and Insulating Solutions

3M Cold Shrink tubing delivers a fast and secure seal for coaxial, communications, and other low voltage electrical connections in both indoor and outdoor applications. It can also be used to repair wires, bundle wires together, and to protect wires or small parts from minor abrasion.

3M Cold shrink tubing is an open ended rubber sleeve, that has been factory expanded or pre-stretched, and assembled onto a removable plastic core. Cold shrink tubing shrinks upon removal of the core during the installation process.



## 3M™ Cold Shrink Tubing

### Applications:

- Wireless Base Station
- Wireless Tower and Rooftop
- Weatherproof protection

### Product Highlights:

- Easy to Install
- Conformable
- Tool-less
- Excellent protection and seal
- Available in variety of sizes and lengths
- UV resistant
- Abrasion resistant for cable transitions and insulation
- Made in USA















## 3M™ Heat Shrink Tubing

### Applications:

- Wireless Base Station
- Wireless Rooftop
- Weatherproof protection

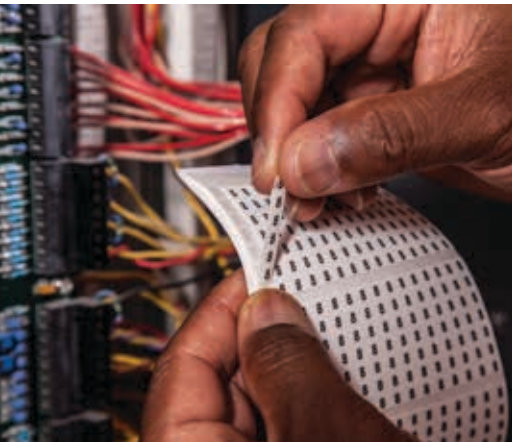
### Product Highlights:

- Abrasion and cut resistance
- Dual wall adds protection from moisture and airborne contaminants
- Available in a variety of sizes and lengths
- UV resistant
- Majority made in USA



# Wire Identification and Management Systems

Consistency is key in all of your electrical projects. 3M identification and management systems provide easy management of wires, panels, and terminal blocks. 3M products meet or exceed the latest compliance standards, helping you keep your project on track.



## 3M™ ScotchCode™ Wire Markers

### Applications:

- Easily identify wires for maintenance and repair
- Common uses: electrical and control panels, telecom and communication, automotive, marine, safety and security, switches and outlets

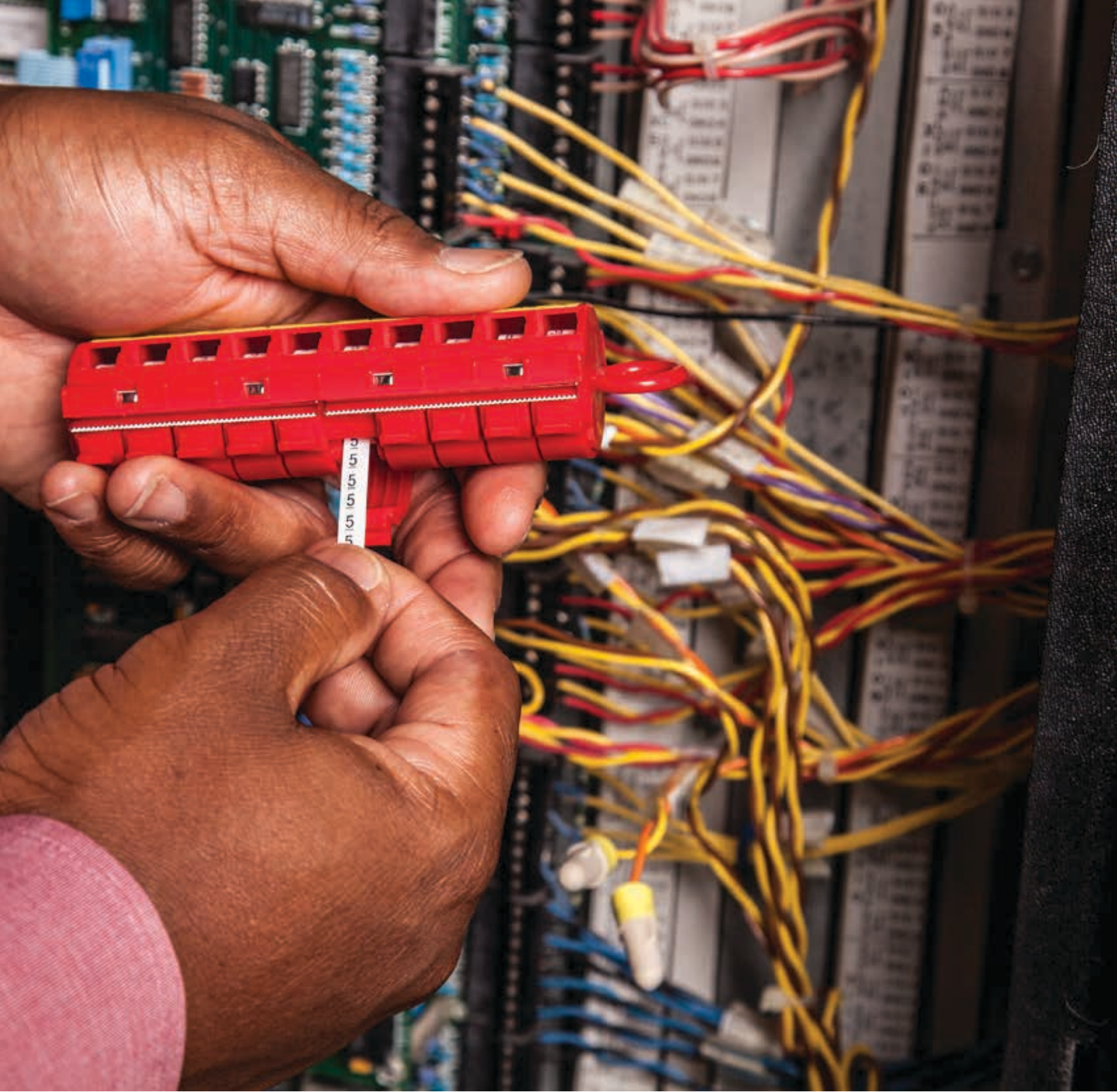


### Product Highlights:

- Multiple sizes and form factors for a variety of applications
- Tag material resists solvents, oil and water
- Convenient, pre-printed or write-on labels; refillable dispensers
- Comply with local, state and federal construction and building codes













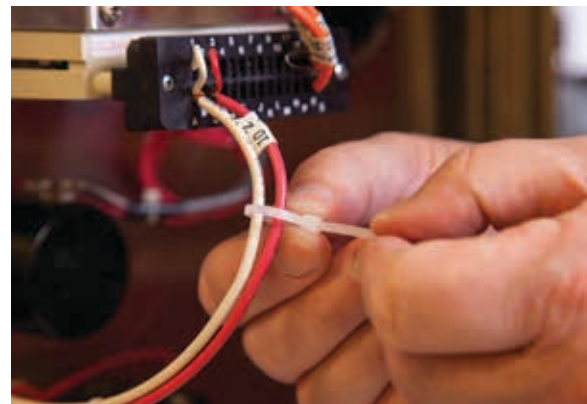
## 3M™ Cable Ties

### Applications:

- Manage, bundle or secure cable in a variety of applications and sizes
- Common uses: data center, cable trays, control panels, HVAC cable management and harnessing in BTS equipment cabinets

### Product Highlights:

- Plenum-rated for use in air-handling spaces
- Available in a range of lengths (4" to 48") and tensile strengths (18 lbs to 175 lbs)
- Operating temperature ranges from -40°F (-40°C) to 185°F (85°C)
- Available in natural, red and black
- Black ties provide UV resistance for outdoor applications
- UL Listed
- Majority made in USA





# Terminals

Peace of mind is knowing that your wiring is secure. Whether it's defense against corrosion, mechanical stress or tension, 3M terminals forge connections that last and last. For more than 30 years, we've grown our expertise and built a legacy of durability through a robust offering of high-quality terminals.



## **3M™ Scotchlok™ Terminals and 3M™ Highland™ Terminals**

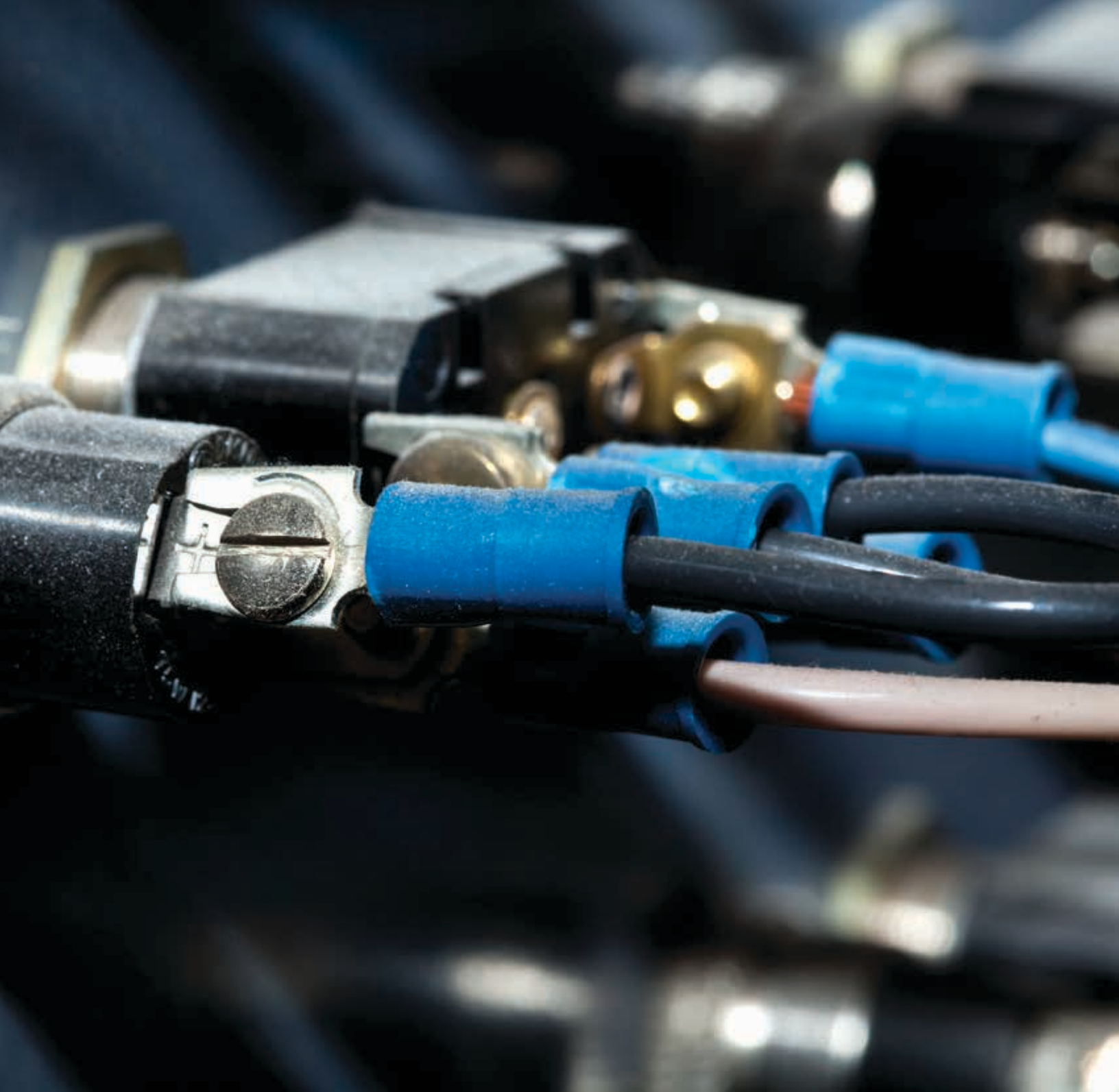
### **Applications:**

- Terminal Blocks
- Control Panels
- Motors
- Appliances
- Automotive/Marine
- Fixtures

### **Product Highlights:**

- Individually molded insulators incorporate a funnel barrel that reduces wire hang-ups and a crimp ridge that enables correct tool placement on selected terminals
- Complete line
- Multiple packaging options
- UL and CSA Listing on select terminals
- Majority made in USA







# Gloves

Your hands are everything. Protect them with the technology and craftsmanship you can trust. Featuring General Use, Winter and Cut Resistant varieties, 3M Comfort Grip Gloves provide the dexterity of bare hands with added protection and gripping power, even in wet and oily conditions.



## 3M™ Comfort Grip Gloves

### Applications:

- Help protect hands during assembly and install, while maintaining dexterity
- Common uses for 3M Comfort Grip General Use and Winter Gloves: general material handling and handling small parts; electrical component assembly; carpentry, plumbing, roofing, and irrigation
- Common uses for 3M Comfort Grip Cut Resistant Gloves: handling abrasive or sharp materials; forming, bending or machining sharp parts; cable pulling and wire handling; cable preparation
- Common uses for 3M Gripping Material Work Gloves: factory and maintenance work, heavy equipment operation, outdoor construction





### Product Highlights:

- A range of glove options for general and cut-resistant applications
- Lightweight, designed for comfort (“second skin” feel) and breathability
- Palm coating provides gripping power, even in wet or oily conditions
- Help prevent hand abrasions and cuts during cable splicing, conduit handling, metal stamping and fabrication (Cut Resistant Gloves)
- Touchscreen finger functionality through the Gripping Material High Dexterity Glove



**Time-tested, efficient, and scalable for all sizes of projects, look to 3M products for comprehensive electrical solutions for all your project needs. Let our sales representatives walk you through our complete product lines for your commercial or industrial worksites.**

3M, Highland, Super 33+, Scotch, ScotchCode, Scotchlok, Temflex, Scotchfil and Scotch-seal are trademarks of 3M company.

#### **Important Notice**

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

#### **Warranty; Limited Remedy; Limited Liability.**

3M's product warranty is stated in its Product Literature available upon request. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any direct, indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

The 3M products associated with "Made in USA" statements in this brochure are manufactured in the USA.

3M products offered on a government contract require country of origin written certification by 3M's Trade Compliance Department.

Please contact your customer service representative at 800-245-3573.

As of December 2015 the information in this brochure is accurate, to 3M's knowledge and belief, which may be based on information provided by third party suppliers to 3M.



#### **Electrical Markets Division**

6801 River Place Blvd.  
Austin, TX 78726-9000 USA

Phone 1-800-426-8688  
Fax 1-800-626-0329  
Web 3M.com/electrical

© 3M 2016. All rights reserved.  
80-6016-0837-7