

3M 2228-2X10FT

3M Scotch Rubber Mastic Tape 2228 Instruction Manual

Model: 2228-2X10FT

1. INTRODUCTION

The 3M Scotch Rubber Mastic Tape 2228 is a premium-grade, highly conformable, self-fusing rubber electrical insulating and sealing tape. It is designed for a variety of electrical applications requiring insulation and moisture sealing. This manual provides essential information for the proper use, application, and care of your 3M Scotch Rubber Mastic Tape 2228.



Image 1.1: A roll of 3M Scotch Rubber Mastic Tape 2228, showing its black mastic side and brown liner.

2. SAFETY INFORMATION

Important: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. These products are not intended, labeled, or

packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature).

- Always select and use this product in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI).
- Refer to all product literature, user instructions, warnings, and other limitations provided by 3M.
- Misuse of 3M industrial and occupational products may result in injury, sickness, death, or property damage.
- For assistance with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert.
- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection during application.
- Ensure the work area is well-ventilated.

For additional product information and compliance details, visit www.3M.com/regs.

3. PRODUCT OVERVIEW

The Scotch Rubber Mastic Tape 2228 features an ethylene-propylene rubber (EPR) backing coated with a temperature-stable mastic adhesive. This combination provides excellent electrical insulation and moisture sealing properties.

Key Characteristics:

- **Self-Fusing:** The tape fuses to itself, creating a seamless, void-free insulation and seal.
- **Highly Conformable:** Its thick construction (65 mil) allows for quick build-up and padding over irregular connections, ensuring a tight seal.
- **Electrical Insulation:** Provides primary electrical insulation for cable and wire connections and vibration padding for motor leads rated up to 1000 V.
- **Moisture Sealing:** Offers superior adhesion and sealing characteristics with copper, aluminum, and various power cable jacket materials.
- **Temperature Stable:** Designed for applications up to 130 °C (266 °F).
- **Environmental Resistance:** Resistant to moisture and ultraviolet (UV) exposure, suitable for both indoor and weather-exposed outdoor environments.

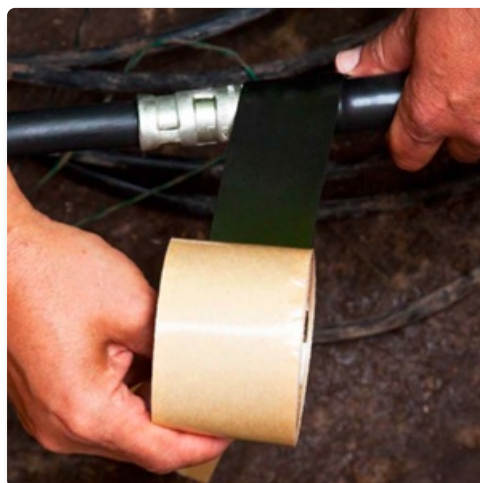


Image 3.1: The mastic adhesive side of the tape, designed for strong sealing.



Image 3.2: The thick construction of the tape, enabling quick build-up and conformability.

4. SETUP AND PREPARATION

Proper preparation of the surface and the tape is crucial for optimal performance.

4.1 Required Tools and Materials:

- 3M Scotch Rubber Mastic Tape 2228
- Clean cloth or solvent for surface cleaning (if necessary)
- Utility knife or scissors (for cutting tape)
- Personal Protective Equipment (PPE)

4.2 Surface Preparation:

1. Ensure the surface where the tape will be applied is clean, dry, and free from oil, grease, dust, or other contaminants.
2. If necessary, clean the surface with an appropriate solvent and allow it to dry completely.
3. The ambient temperature should be within the recommended application range for best results.

5. OPERATING INSTRUCTIONS (APPLICATION)

Follow these steps for effective application of the 3M Scotch Rubber Mastic Tape 2228.

1. **Unroll and Cut:** Unroll a sufficient length of tape from the roll. Cut the desired length using a utility knife or scissors.
2. **Remove Liner:** Peel back the protective liner from the mastic side of the tape. Work with short sections at a time to prevent the mastic from sticking to itself or other surfaces prematurely.
3. **Apply with Tension:** Begin applying the tape to the prepared surface. Stretch the tape to approximately 75% of its original width during application. This stretching helps the tape conform and self-fuse effectively.
4. **Overlap:** For optimal insulation and sealing, overlap each successive wrap by at least 50% of the tape's width. This creates a continuous, void-free layer.
5. **Conform to Irregularities:** Press the tape firmly into place, especially around irregular shapes or connections, to ensure full contact and eliminate air voids. The conformable nature of the tape allows it to mold around complex geometries.
6. **Finish Application:** Once the desired area is covered, cut the tape and press the end firmly onto the

previous layer. The tape will begin to self-fuse, forming a durable, moisture-resistant seal.



Image 5.1: Demonstrating the application of the tape to a cable, showing the conformability.

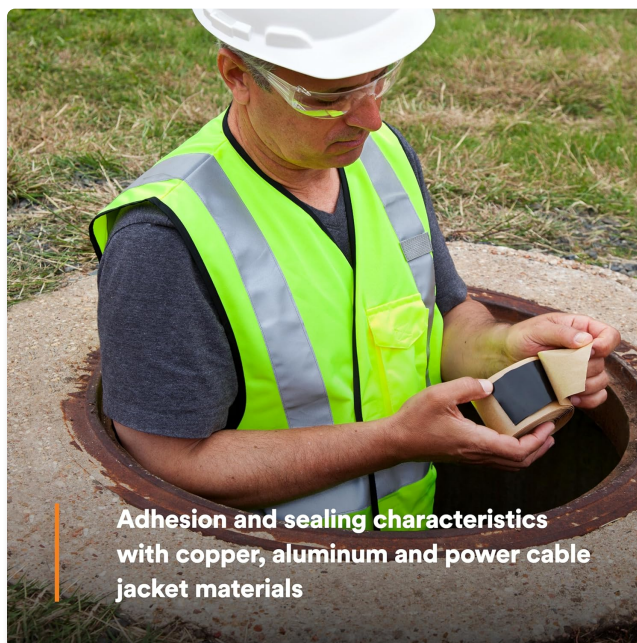


Image 5.2: An example of the tape being used for sealing in an industrial setting, highlighting its adhesion and sealing characteristics.

6. MAINTENANCE

The 3M Scotch Rubber Mastic Tape 2228 is designed for long-lasting performance with minimal maintenance once applied correctly.

- **Storage:** Store unused tape rolls in their original packaging in a cool, dry place, away from direct sunlight and extreme temperatures, to maintain adhesive integrity.
- **Inspection:** Periodically inspect applied tape for any signs of damage, degradation, or loss of adhesion, especially in outdoor or harsh environments.
- **Repair/Replacement:** If damage is observed, remove the affected section and reapply new tape following the operating instructions to ensure continued protection.



Image 6.1: The tape's resistance to moisture and UV exposure contributes to its low maintenance requirements in various environments.

7. TROUBLESHOOTING

Most issues with 3M Scotch Rubber Mastic Tape 2228 can be resolved by ensuring proper application techniques.

- **Poor Adhesion:**

- Ensure the surface was clean and dry before application.
- Verify sufficient tension was applied during wrapping to promote self-fusing.
- Check if the tape was stored correctly; extreme temperatures can affect adhesive performance.

- **Incomplete Seal/Voids:**

- Ensure each wrap overlapped the previous one by at least 50%.
- Apply firm pressure to conform the tape to all contours and eliminate air pockets.
- Stretch the tape adequately during application.

- **Tape Degradation:**

- While resistant, prolonged exposure to harsh chemicals or extreme conditions beyond specifications may affect longevity.
- Ensure the tape is suitable for the specific environmental conditions of the application.

8. SPECIFICATIONS

Feature	Detail
Brand	3M
Model Number	2228-2X10FT

Feature	Detail
Product Dimensions	2 in x 10 ft (65 mil thick)
Material	Rubber (Ethylene-Propylene Rubber backing with mastic adhesive)
Color	Black
Temperature Rating	Up to 130 °C (266 °F)
Application	Electrical insulation, moisture sealing, vibration padding
Environment	Indoor and weather-exposed outdoor applications
Compliance	UL listed, RoHS compliant
Number of Items	1 Roll



Image 8.1: The product packaging for 3M Scotch Rubber Mastic Tape 2228, indicating its professional grade.

9. WARRANTY AND SUPPORT

For specific warranty information regarding 3M Scotch Rubber Mastic Tape 2228, please refer to the product packaging or contact 3M directly. 3M stands behind its products and provides technical support for industrial and occupational users.

Contact Information:

- Visit the official 3M website for product data sheets, safety data sheets (SDS), and technical support resources.
- For compliance information, visit www.3M.com/regs.
- Consult your local 3M representative or distributor for further assistance.

