

Grote 84-4020

Grote 844020 Flexible Dual Wall Heat Shrink Tube Instruction Manual

1. INTRODUCTION

The Grote 844020 Flexible Dual Wall Heat Shrink Tube is designed to provide robust electrical insulation, moisture resistance, and strain relief for various connections. Its dual-wall construction features a semi-rigid, cross-linked polyolefin outer wall and an adhesive inner lining that melts and flows upon heating, creating a secure, moisture-resistant seal. This product is suitable for insulating and protecting irregularly shaped components and offers protection against chemicals, abrasion, vibration, and flexing.

2. PRODUCT OVERVIEW

The Grote 844020 heat shrink tube is engineered for durability and performance in demanding environments.

Key Features:

- Flexible Dual Wall construction for enhanced protection.
- Adhesive lining provides moisture resistance and a secure seal.
- Offers strain relief for splices, terminations, and breakouts.
- Protects against chemicals, abrasion, vibration, and flexing.
- 3:1 shrink ratio for versatile application.

What's in the Box:

- Grote 84-4020 Shrink Tube - 3:1, Flexible Dual Wall, Black, 3/4" x 6", Pack of 6



An image showing a single black Grote 844020 Flexible Dual Wall Heat Shrink Tube, approximately 3/4 inch in diameter and 6 inches long, against a white background. The tube appears smooth and cylindrical, ready for application.

3. SETUP

Proper preparation is crucial for effective heat shrink application.

1. **Select Correct Size:** Choose a heat shrink tube with an internal diameter large enough to fit over the component or splice before shrinking, but small enough to shrink down to a snug fit. The Grote 844020 has a 3:1 shrink ratio, meaning it will shrink to one-third of its original diameter.
2. **Prepare the Surface:** Ensure the surface of the component or wire to be covered is clean, dry, and free from oils, grease, or debris. Use a suitable cleaner if necessary and allow it to dry completely.
3. **Cut to Length:** Cut the heat shrink tube to the desired length using a sharp utility knife or scissors. Account for any overlap needed for full coverage and sealing.
4. **Position the Tube:** Slide the cut heat shrink tube over the connection or component you wish to insulate or protect. Center it carefully to ensure even coverage after shrinking.

4. OPERATING INSTRUCTIONS

Applying heat shrink tubing requires a controlled heat source for optimal results.

1. **Choose a Heat Source:** Use a heat gun specifically designed for heat shrink tubing. A butane torch can be used with extreme caution, but avoid open flames directly on the tubing as this can cause uneven shrinking, scorching, or damage.
2. **Apply Heat Evenly:** Begin applying heat to one end of the tube, moving the heat source slowly and continuously along the length of the tube. Maintain a consistent distance between the heat source and the tubing to ensure even heating.
3. **Observe Shrinking:** As heat is applied, the tube will begin to shrink and conform to the shape of the underlying component. For dual-wall tubing like the Grote 844020, you will observe the adhesive inner lining

melting and flowing out slightly at the ends, indicating a proper seal.

- 4. **Continue Until Fully Shrunk:** Continue applying heat until the tube is uniformly shrunk, tight against the component, and the adhesive has flowed out evenly around the ends. Avoid overheating, which can damage the tubing or the underlying components.
- 5. **Allow to Cool:** Once fully shrunk, allow the assembly to cool completely before handling or subjecting it to stress. This allows the adhesive to set and form a strong bond.

5. MAINTENANCE

Once properly installed, Grote 844020 heat shrink tubing requires minimal maintenance.

- **Periodic Inspection:** Periodically inspect the heat-shrunk connections for any signs of damage, cracking, or degradation, especially in harsh environments.
- **Cleaning:** If cleaning is necessary, use a mild, non-abrasive cleaner and a soft cloth. Avoid harsh chemicals that could compromise the integrity of the polyolefin or adhesive.
- **Storage:** Store unused heat shrink tubing in a cool, dry place away from direct sunlight and extreme temperatures to preserve its properties.

6. TROUBLESHOOTING

Addressing common issues during heat shrink application.

- **Uneven Shrinking:** If the tube shrinks unevenly, it is likely due to inconsistent heat application. Ensure the heat source is moved continuously and evenly along the entire length of the tube.
- **Incomplete Seal (No Adhesive Flow):** If the adhesive does not flow out at the ends, insufficient heat was applied. Reapply heat carefully, focusing on the ends until the adhesive is visible.
- **Scorching or Melting:** This indicates excessive heat or holding the heat source too close for too long. Reduce heat intensity or increase the distance from the tube.
- **Tube Does Not Shrink Enough:** The tube may be too large for the component, or insufficient heat was applied. Verify the tube size and ensure adequate heat is used.
- **Cracking After Cooling:** This can occur if the tube was stretched excessively before shrinking or if it was severely overheated. Ensure proper sizing and controlled heat application.

7. SPECIFICATIONS

Specification	Detail
Brand	Grote
Model	84-4020
Item Weight	2.08 ounces
Product Dimensions	10.5 x 4 x 1 inches
Shrink Ratio	3:1
Material	Flexible Dual Wall (Polyolefin outer, Adhesive inner)
Color	Black

Specification	Detail
Size	3/4" x 6"
Package Quantity	6

8. WARRANTY AND SUPPORT

For specific warranty information or technical support regarding your Grote 844020 Flexible Dual Wall Heat Shrink Tube, please refer to the official Grote website or contact Grote customer service directly. Keep your purchase receipt as proof of purchase.

Grote is committed to providing quality products. If you encounter any issues or have questions not covered in this manual, please reach out to their support channels for assistance.

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