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› Lortone 590-032 4-Step Rock Tumbling Abrasive Kit Instruction Manual

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Model: 590-032

INTRODUCTION

This manual provides instructions for the Lortone 4-Step Rock Tumbling Abrasive Kit, Model 590-032. This kit is designed to process rough stones into polished gems using a standard rock tumbler (not included). The kit contains pre-measured abrasives and polish for a complete four-step tumbling process.

The kit includes:

- 5 lbs. Coarse Silicon Carbide (60/90 grit)
- 5 lbs. Fine Silicon Carbide (120/220 grit)
- 5 lbs. Aluminum Oxide Pre-Polish
- 5 lbs. Ultra-Fine Aluminum Oxide Polish



Image: Components of the Lortone 4-Step Rock Tumbling Abrasive Kit, showing the four containers of abrasive and polish materials.

SETUP

Before beginning the tumbling process, ensure you have the following:

- A functional rock tumbler with a barrel.
- Rough stones suitable for tumbling.
- Access to water for cleaning.
- A dedicated area for tumbling, as the process can be noisy and messy.

Inspect the abrasive containers upon receipt to ensure they are sealed and undamaged. Store the abrasives in a cool, dry place away from direct sunlight and moisture.

OPERATING INSTRUCTIONS: THE 4-STEP TUMBLING PROCESS

This kit is designed to process approximately 12-14 pounds of rough stone. Each step requires careful attention to achieve optimal results.

Step 1: Coarse Grind (60/90 Grit Silicon Carbide)

This step is for initial grinding and shaping of rough stones, removing sharp edges and major imperfections.

1. Fill your tumbler barrel 2/3 to 3/4 full with rough stones. Ensure stones are of varying sizes to promote better tumbling action.
2. Add the appropriate amount of **Coarse Silicon Carbide (60/90 grit)**. Refer to your tumbler's instructions for specific ratios, typically 2-4 tablespoons per pound of rock.
3. Add water until it just covers the top layer of stones.
4. Seal the barrel securely and place it on the tumbler base.
5. Tumble for 7-10 days. Check the stones daily for water level and to observe progress. If the slurry becomes too thick, add a small amount of water.
6. After 7-10 days, or when stones have achieved desired shape, empty the barrel. *Thoroughly clean the stones, barrel, and lid to remove all coarse grit residue.* Any remaining coarse grit can contaminate subsequent steps and prevent proper polishing.

Step 2: Fine Grind (120/220 Grit Silicon Carbide)

This step smooths the stone surface after the initial shaping, preparing them for pre-polishing.

1. Return the cleaned stones to the thoroughly cleaned tumbler barrel.
2. Add the appropriate amount of **Fine Silicon Carbide (120/220 grit)**. Use the same ratio as in Step 1.
3. Add water until it just covers the top layer of stones.
4. Seal the barrel and tumble for 7-10 days.
5. After tumbling, empty the barrel and *meticulously clean the stones, barrel, and lid.* This step is critical to prevent cross-contamination.

Step 3: Pre-Polish (Aluminum Oxide Pre-Polish)

This step prepares the stones for the final polish, removing any remaining fine scratches.

1. Place the cleaned stones back into the meticulously cleaned tumbler barrel.
2. Add the appropriate amount of **Aluminum Oxide Pre-Polish**.
3. Add water until it just covers the top layer of stones.
4. Seal the barrel and tumble for 5-7 days.
5. Upon completion, empty the barrel and *perform an extremely thorough cleaning of all components.* Even microscopic particles from previous steps can ruin the final polish.

Step 4: Polish (Ultra-Fine Aluminum Oxide Polish)

This final step brings out the luster and shine of your tumbled stones.

1. Ensure stones, barrel, and lid are absolutely free of any grit from previous steps. Consider using a separate barrel for polishing if available, or dedicate one barrel for this final step.
2. Return the pre-polished stones to the clean barrel.
3. Add the appropriate amount of **Ultra-Fine Aluminum Oxide Polish**.
4. Add water until it just covers the top layer of stones.
5. Seal the barrel and tumble for 5-7 days.
6. After this final tumbling cycle, remove the stones. Rinse them thoroughly with water and allow them to air dry.

Important Note: Always dispose of used slurry responsibly. Do not pour slurry down household drains as it can cause clogs. Filter out solids and dispose of them in the trash, then discard the remaining water in an appropriate outdoor area.

MAINTENANCE

Cleaning the Tumbler Barrel

After each tumbling step, it is crucial to clean the tumbler barrel and lid thoroughly. Use a stiff brush and plenty of water to remove all abrasive particles. Failure to do so will result in cross-contamination, which can prevent stones from polishing correctly.

Storage of Abrasives

Keep unused abrasives sealed in their original containers in a cool, dry place. Ensure lids are tightly closed to prevent moisture absorption and contamination.

TROUBLESHOOTING

- **Stones not smoothing or shaping:** Ensure the barrel is filled 2/3 to 3/4 full. Check that the tumbler is operating correctly. Increase tumbling time for harder stones or if more shaping is needed.
- **Stones not polishing to a shine:** This is most commonly caused by insufficient cleaning between steps, leading to grit contamination. Re-clean all components thoroughly and repeat the pre-polish and polish steps. Ensure enough polish is used and tumbling time is adequate.
- **Excessive noise from tumbler:** Check the barrel for proper seating on the rollers. Ensure the motor is lubricated according to your tumbler's manufacturer instructions.
- **Slurry too thick or too thin:** Adjust water levels. Slurry should be a creamy consistency.

SPECIFICATIONS

Model Number	590-032
Brand	Lortone
Kit Contents	5 lbs. Coarse Silicon Carbide (60/90 grit), 5 lbs. Fine Silicon Carbide (120/220 grit), 5 lbs. Aluminum Oxide Pre-Polish, 5 lbs. Ultra-Fine Aluminum Oxide Polish
Total Kit Weight	Approximately 20 lbs (excluding packaging)
Recommended Stone Capacity	Up to 12-14 lbs of rough stone per cycle
Product Dimensions (Kit Packaging)	0.1 x 0.1 x 0.1 inches (Note: This refers to the packaging dimensions, not the individual abrasive containers)

WARRANTY INFORMATION

This Lortone product is manufactured to high-quality standards. For specific warranty details regarding manufacturing defects or material issues, please refer to the documentation provided with your purchase or contact Lortone customer support directly. Abrasive materials are consumable and their performance is dependent on proper usage and storage.

CUSTOMER SUPPORT

For technical assistance, questions about the product, or to report any issues, please contact Lortone customer support. Contact information can typically be found on the product packaging or the official Lortone website.

Please have your product model number (590-032) available when contacting support.