

# How to Make Slow Match

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## Materials needed:

- a. Potassium Nitrate ( $\text{KNO}_3$ )
- b. Cotton line ( $\frac{1}{4}$  in solid braid works best)
- c. Water
- d. Food coloring
- e. Pan (used for dissolving solution)
- f. 1 quart plastic peanut butter jar or similar container (for soaking cotton line)
- g. Cookie sheet, drying rack or Dehydrator

## Procedure

1. Coil cotton line into empty peanut butter jar.
2. Heat 1 quart of water on stove below a boil.
3. Dissolve 4 tbs of potassium nitrate in hot water.
4. Use food coloring to tint the solution. (this helps identify cotton line as slow match.)
5. Using a small shot glass or a smaller lid placed inside and on top of the line will help keep line submerged.
6. Slowly pour tinted  $\text{KNO}_3$  solution into jar.
5. Gently squeeze out air as you tighten lid.
6. Ensure the braided cotton line is completely submerged in solution from 12 to 24 hours.
7. During the first few hours air will slowly come out of the cotton line. By squeezing the plastic jar periodically, it will help force the air out of the line and ensure complete saturation.
8. Remove the saturated cotton line from the jar and lay the slow match flat for drying. Ensure the slow match dries flat. Use a dehydrator for best results. "Do not hang dry!"
9. Store dried slow match in zip-lock bag or another airtight container.
10. Keep stored in cool dry place.

## Notes.

1. Make sure the line you use is 100% cotton with no nylon or plastic in the core.
2. Although 100% cotton 3 strand twisted line will work, it tends to flare out or unfurl at the ends when used, for best results use 100% cotton solid braid line.
3. If the line does not stay completely submerged during the soaking process, it will burn unevenly or burn out.
4. If you hang dry the line, the potassium nitrate will collect at the lower portions of the line and hence, burn unevenly or burn out.
5. Using a dehydrator speeds up the drying process and helps keep the  $\text{KNO}_3$  evenly distributed throughout the line.
6. If you do not have a dehydrator, place your cookie sheet or drying rack in the sun and make darn sure it's dry before storing. If it's not good and dry, it will grow mold while in storage.
7. Use food coloring to tint your slow match any color you like to identify the cotton line as being treated as slow match.