

Black Match & Quick Match

Black Match

Black Match is perhaps the single most widely used type of fuse, and, due to its simplicity (relative to other fuses), it can be easily made by even the novice pyrotechnician. However, its simplicity may deceive some. It requires a lot of patience and practice before one is able to make good and consistent Black Match every time.

To make Black Match, take 20 parts of meal-grade Black Powder and mix it intimately (perhaps in a ball mill for ~30min) with 1 or 2 parts of dextrin (depending on your preferences), and put this into a bowl or similar container. Boil some water and add it slowly, while mixing, to the BP/dextrin mixture until a paste with a uniform consistency, about as thick as porridge, has been obtained.

Next, obtain some cotton string. This should ideally be about 1/16th of an inch in diameter. Then, drop a length of the string into the BP paste-filled bowl, and stir it around with a plastic rod for about 3 minutes. Then, put on some latex gloves (I buy them from the local pharmacy), take the string out, and rub in the BP paste that stays attached to the string with a circular motion of the thumb, index finger, and middle finger. Then, place the string back into the BP paste bowl and stir it around for another minute.

Next, take a piece of sheet metal, Lexan, Plexiglas, or other non-absorbent material (definitely not wood) and drill a 1/8th" hole through it. This will be the die used to control the overall diameter of the fuse. Put one end of the BP-paste-coated string through the hole and pull until the entire string has passed through the hole. This will take off any excess BP paste and ensure that the Black Match is 1/8th" in diameter.

Next, tape one end of the fuse to a rack or similar item and allow it to dry. The Black Match is finished.

Quick Match

Quick Match is basically slightly modified Black Match which has been enclosed in a 1/4" paper tube. When the Quick Match is lit, the tube surrounding the Black Match core will cause the sparks generated by the burning of the Black Match to flash through the tube instantaneously, igniting the rest of the Black Match core with incredible speed.