

General Instructions

Recommended Case Lengths

I.D. (inches)	Length (inches)
$\frac{3}{4}$	5
$\frac{7}{8}$	6
1	7
$1\frac{1}{4}$	8
$1\frac{1}{2}$	9

Fuel

Commercial Black Powder, 3F G, 4F G, or Meal D

2nd choice: ball milled black powder

Clay nozzle

Recommend Bentonite clay with 5% added graphite clay. Nozzle thickness is very important to have the end burner rocket work properly. The spindle should extend about $\frac{1}{16}$ " above the finished pressed nozzle. For repeatable results the clay should be measured carefully. If the spindle extends too far into the propellant, then too much area of the propellant grain is being burned at one time and the rocket may explode. See sketch below. Finish loading the rocket with propellant one I.D. increment at a time to desired height, finish with clay plug. To add a heading to the rocket you must drill a small hole through the clay plug for fire transfer.

