



## Constructing a Reamer using Mud Hole Reamer Abrasive

This industrial abrasive is a 36 or 50 grit aluminum oxide on a heavy resin bonded cloth which is perfect for gluing to rod blank sections or worn out reamers to make extremely durable power or hand reamers. The 25 foot roll will make 6 – 10 16” reamers.

Steps for making reamers:

1. Find a piece of rod blank the diameter and length that suits your needs. The average reamers are 14” – 18” in length. This could be a piece of a new blank or an old rod with a broken tip that you have removed the guides from. A heavier blank is better than a light one especially if you plan on power reaming.
2. Before applying cement, dry wrap the reamer abrasive around the blank to determine the length of abrasive material necessary for completing the reamer you have chosen. Hold the small end of the blank away from you, Start at the small end of the blank. Use masking tape to hold the end of the reamer abrasive to the blank. The direction of the wrap is extremely important, in most cases wrap clockwise, this is because most drills and lathes turn clockwise. It is important to leave a 1/8” to ¼” gap between each wrap as you spiral it onto the blank. This effectively removes waste material and reduces heat build-up.
3. Apply 5 minute epoxy to the rod blank. Wrap the reamer abrasive clockwise around the blank. We recommend using gloves to protect your hands during this step
4. At this point a little extra reinforcement at the beginning and end of the reamer abrasive is suggested. This can be accomplished by wrapping nylon thread on top of the abrasive material for about one-inch. Then apply 5 minute epoxy on top of the threads.
5. For power reaming you will need to glue a metal shank into the butt end of your reamer. There are different ways to match a straight shank into the tapered hole. We have found that epoxying several two inch matching tapered blank pieces into the end of the reamer works for this. Each tapered piece should be progressively smaller in diameter until the remaining opening is smaller than the metal shank. After the epoxy has dried, drill a hole slightly larger than the metal shank into the butt end of the reamer. Epoxy the metal shank into place leaving approximately two inches sticking out. This will be the part that fits into the chuck of your drill or lathe.