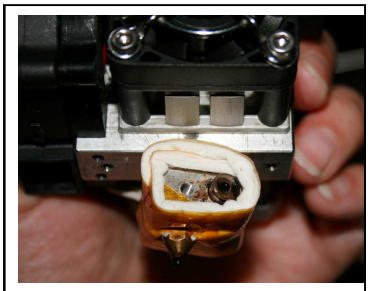
MakerBot Replicator 1 or 2 : Technical Support Article
Changing Ceramic Tape

Version 1.1

What does the cermic tape do?
The ceramic tape around your heater block is VERY VERY IMPORTANT! It keeps the heat in the block and stops it from spreading up into the filament feeder system and down onto your print. It can effect print quality, filament loading and flow rates and even stop the print sticking to the bed.

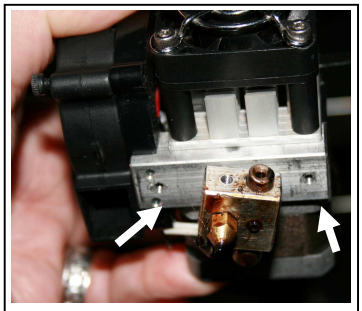


1.1 The ceramic tape correctly in place coating the heater block and held on firmly with Kapton tape.

Why would it need changing?
If you had a failed print that stuck onto the heater block the tape may become damaged. Also, over time, it can fall apart and also degrade.

How Do I Fit It?
Heads up—This IS going to be a little fiddly.
You will need : Ceramic tape Pliers Sharp scissors Possibly a ruler
2.5mm Allen key Kapton Tape (any width but 20+mm is easiest to work with)

Step 1 : Lift out extruder assembly and clean off old tape
You will find 2 screws under the long aluminium bar (to the left and right side of the nozzle) that hold the whole extruder in place. Undo these and gently lift the extruder assembly up and onto the top edge of the machine. Now clean off the old tape (acetone may be needed to clean off filament etc.

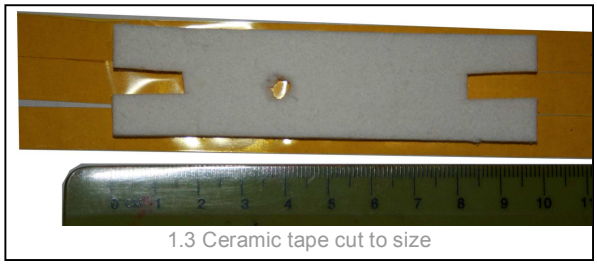


1.2 Extruder lifted off gantry
Arrows show 2 mounting screws

Step 2 : Cut the ceramic tape to size
You will need a 10cm length of tape. Cut a 1.5 X 0.5cm long notch out
Of one end. Then a small circle for the nozzle at 4cm in, and a 2-2.5cm notch out of the opposite side.

Now lay your Kapton sticky side up on the bench and put the ceramic tape on it so that a generous amount of tape extends beyond both ends of the tape at least 2cm.

Cut out the notches and nozzle hole in the kapton.



1.3 Ceramic tape cut to size

Step 3 : Putting on the tape.
Start by putting the nozzle through the hole, so that the left side (as per the photo above) face the side of the block the barrel enters in on. The grab the 2 left side ends and fold these up the sides of the heater block and around the barrel, the pull the kapton strips tight and tape these to the heater block to hold it all in place.

Now do the same with the other side, but this time you may want to use pliers to hold the kapton and pull it around the barrel. Then use you fingers to pull the tape firmly taking up all slack from the underside and tape the kapton to the kapton coated ceramic tape on the side of the heater block. Trim the kapton at the base of the side of the block.

1.4 Step 3—Putting on the Tape

Step 4 : neaten it up and put it back together.
If the ceramic tape around the nozzle, or Kappton tape have dags dangling, you can cut a 3 X 2cm piece of kapton with a nozzle hole in the centre and push this on the base of the block and around the sides to neaten everything up.
It should not look like Fig 1.1

Now put the extruder back in place and start printing.

NOTE : the first time you run a print with fresh ceramic tape you may smell a cookie dough type smell, this is normal.

BilbyCNC hopes you found this helpful. Please visit support.bilbycnc.com.au if you need further assistance

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