Preparing Spaghetti Samples for Tension Test

Specimens must be prepared at least four hours before the beginning of this lab.

First, pry the prongs of the cotter pins apart so that a uniform gap is created which is wide enough to accommodate the spaghetti.

Next, make two lines 13cm apart on a piece of paper and slip this paper under a piece of wax paper. The lines on the paper will serve as a guide for making correct-length specimens; the wax paper will keep the epoxy from sticking to the paper.

Place two cotter pins so that the centers of their heads are on the lines and their prongs are pointing toward one another.

Take a piece of spaghetti approximately 12cm long and place it between the prongs of the two cotter pins.

Prepare the epoxy by thoroughly mixing equal volumes of resin and hardener. Use a piece of spaghetti to mix the epoxy.

Epoxy the spaghetti to the prongs. Don’t let the spaghetti or the epoxy extend into the heads of the cotter pins. And make sure that the centers of the heads of the cotter pins are separated by 13cm ± 1 mm--the preferred separation for the load-measuring device. Although you will be using “5-minute” epoxy, adequate strength is obtained only after several hours of curing. Prepare 3 specimens each of the different diameters of spaghetti.

Your specimens should look like this: