To do a test run, follow these steps:

1- Open the "tubular p(EMA-co-HEA) scaffold\_scale bar.tif" file in ImageJ (File -> Open…)

2- Run the test.ijm macro (Plugins -> Macros -> Run…)

This macro performs the following:

a) Thresholds the image between 0 and 70. The thresholded image should look like "tubular p(EMA-co-HEA) scaffold\_threshold.tif"

b) Check marks the “Centroid” and “Fit Ellipse” in Set Measurement window before running Analyze Particles plugin.

c) Runs built-in Analyze Particle plugin, showing the outline of the particles/pores detected and generates the Results table (see “Results table.jpeg” and “Results.xls” for an example)

d) Runs the ND plugin (Plugins -> ND)

3- Enter the coordination number

Output:

A new result table is created (See “Distance between particles table.jpeg” and “Distance Between Neighboring Particles.xls for an example, where coordination number = 4, pore sizes are between 100-1000 µm2, and circularity is between 0.4 and 1.0) listing the average distance between each particle and its nearest neighbors, the distance between each particle and its nearest neighbor and the average wall thickness between each particle and its nearest neighbors.

The values in the final results table depend on the parameters set in scaling and thresholding the image. (“tubular p(EMA-co-HEA) scaffold\_threshold.tif”). To replicate the same results make sure you choose the provided image and run the test.ijm macro prior to running the ND plugin.