

Tensile Test

To test the tensile strength, one end of a strand was fixed while the other end was tied to a bucket that was gradually filled with water.



Casting of Specimen

A thin layer of concrete was placed on a sheet of plywood followed by a layer of Spider Mesh and then another layer of Spider Mesh. This process was repeated depending on how many layers were to be tested. (one and two layers of Spider Mesh were tested)

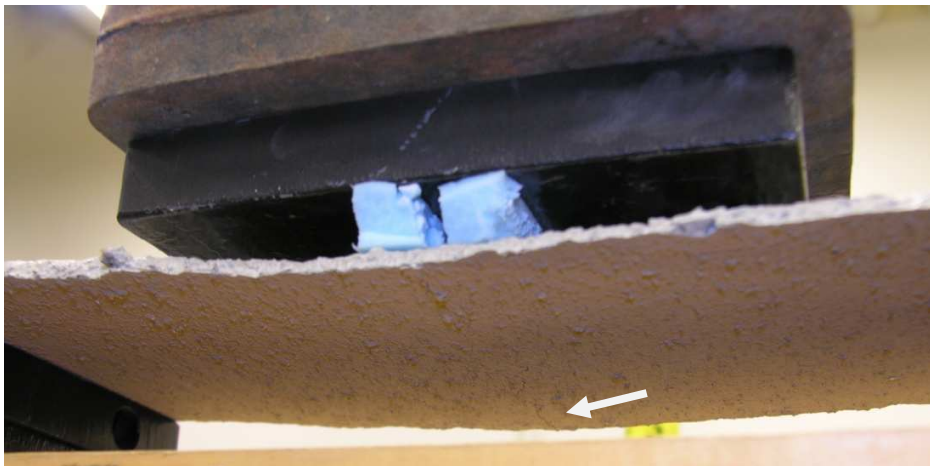


Composite Test

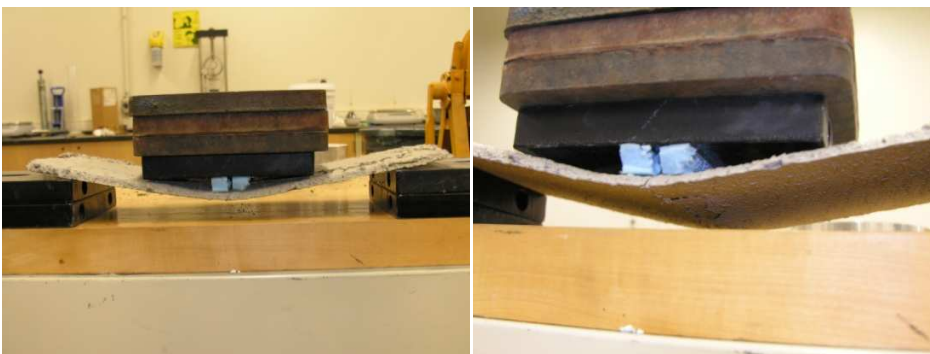
The concrete and mesh were tested as simply supported beams with the same thickness expected in the hull of the canoe.



Loads was slowly incremented until the beam yielded (formation of first crack-below)

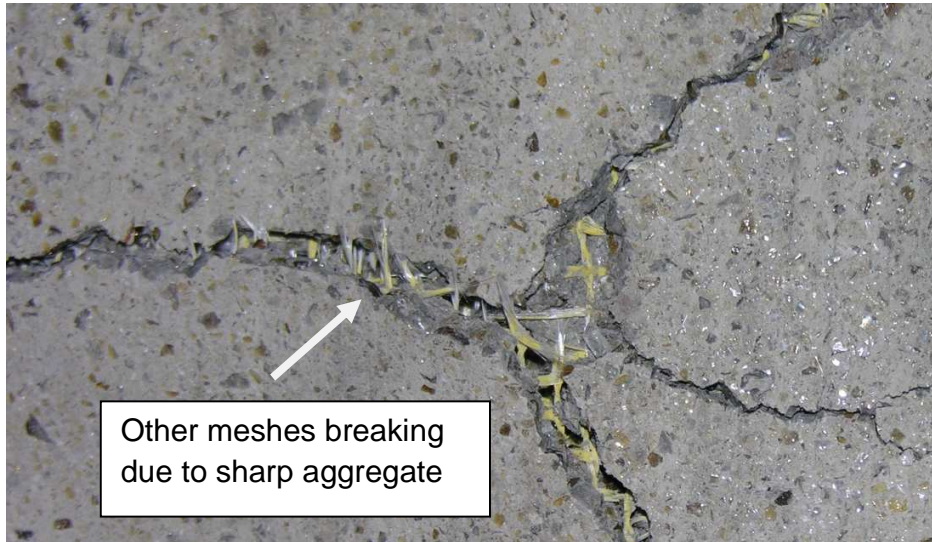


The beam was continued to be loaded until failure



Results

Spider mesh was stronger than other meshes in the tensile tests. As a result, meshes that were not as strong as the Spider mesh were cut by the sharp aggregate in the concrete



Spider mesh also allowed for excellent bonding between layers of concrete.

