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**MODELING OF COMPACTION PRESSURE ON BEHAVIOR OF FIBER**

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Both the behavior of permeability and the fiber volume fraction are impressive factors on the mold filling time, during the composite manufacturing process. While these factors are affected by the applied pressure. However, these factors play an important role in such processes which vacuum pressure lead to resin mobility, e.g. VARTM. In this paper, the variation of volume fraction and permeability caused by compaction pressure has been measured practically in five different types of fibers. By using the result of above procedure, a curve is fitted by MATLAB software for all fiber types. Finally, using data mining methods and bad data reduction a precise model is obtained for fiber behaviors. The effectiveness of the model is shown by more experimental data.  
(Ahlostrom uni + mat, Glass woven roving, Woven triax carbon, double bias DB240 and fiberglass # 223 roving)