Pore network modelling using image processing techniques: Application to the nonwoven material: Part III

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Abstract: After a static approach and then a dynamic one, a fusion of both models is applied in order to obtain a simulation reflecting the real phenomenon of the capillary rise in thin nonwovens. In addition of the useful network, which is defined in order to identify the real course of the liquid, a series of morphological operation and physical rules were carried out in order to obtain the best result. Obtained simulations are near to the real dynamic of the Decane capillary rise except in some zones.

Keywords: Image analysis, modeling, simulation, nonwoven, pore network, capillary rise.