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Publication date: 2018

Document Version
Peer reviewed version

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Citation (APA):

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A micromechanical model of fiber bridging including effects of large deflections and fracture in the bridging fibers

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Abstract
A micromechanical model of crossover fiber bridging is developed for the prediction of macroscopic mixed mode bridging laws (traction-separation laws). The model is based on moderately large deflection beam theory and takes fracture of the bridging ligament into account through a Weibull distributed failure strain.