

Compressibility and Young's modulus of a filled joint under uniaxial compression

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Weathering not only imposes a weakening effect but often widens critical and discrete geological discontinuities that induce further inhomogeneity into the weathered rock mass. Filled joint is one of the example of these geological discontinuities which has been frequently associated with numerous constructional problems. This paper discusses a laboratory investigation on the compressibility of a filled joint model under uniaxial loading. Laboratory test data was used to estimate the modulus of the infill and joint block. Using a *composite homogeneous model*, the modulus of the model filled joint was estimated. The resultant modulus is found to be lower than the modulus of joint block alone.