

## Climate Change Effect on the Dynamic Modulus Property of Asphalt Concrete in Southern England Using UKCP09

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**Abstract :** This paper is directed at using the UKCP09 climate change projection tool to predict the effect of climate change on the dynamic modulus of asphalt concrete in Southern England knowing that there is a pressing challenge directly facing infrastructure in the urban cities in the world today due to climate change. Climate change causes change in the environment which in turn impacts on the long-term structural performance of structures. From the projection values obtained, it was discovered that as the temperature increases, the dynamic modulus reduces and this effect was more on the South West which have temperature range of 36.8 oC to 48.3 oC and dynamic modulus range of 2,212 MPa to 1256 MPa.

**Keywords :** dynamic modulus, asphalt concrete, UKCP09, Southern England

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