Chip seals are known as one of the most efficient and cost-effective rehabilitation and maintenance application for flexible pavements. The performance prediction and service life determination of chip seals are very important for decision makers within pavement management system. Macrotexture is one of the most important performance indicators in chip seals. In this study, a regression based macrotexture prediction model was developed using the construction parameters, traffic volume, daily temperature conditions as well as the laboratory and in situ test results.