

Performance Evaluation of Asphalt Binder Modified by Natural Rock Asphalt

ABSTRACT

Rock asphalt is one of the widely distributed resources in nature. Therefore, this study employs natural rock asphalt as an additive. The focus of this study is to look at the potential of using natural rock asphalt as an asphalt binder modifier. The study looks at five different percentages of modified asphalt (NRA) concentration from Anbar factory asphalt for oxidized bitumen: 0%, 5%, 10%, 20%, and 30%. The results show that using modified natural rock asphalt increased the mechanical qualities of basic asphalt, such as penetration and softening point, flash point, and viscosity. In addition, the current results show that the asphaltic materials that can be used in paving according to the measuring of conventional tests such as ductility, penetration, and others. Furthermore, the findings indicate that modified asphalt has lower temperature sensitivity.