Analisis karakteristik marshall pengaruh penambahan campuran polimer sbr cair dengan campuran aspal panas hotmix agregat dan aspal konvensional lokal = Analysis of marshall characteristic that is influenced by additional sbr polymer liquid with hot asphalt hotmix aggregate and local conventional asphalt

Adlina Nofiani Hidayati, author

Abstrak

Telah dilakukan penelitian Polimer SBR untuk mengetahui pengaruhnya terhadap aspal hotmix dengan menggunakan Aspal lokal. Agregat yang dicampur dengan komposisi optimum, dipanaskan hingga suhu 150oC lalu dicampurkan dengan Aspal yang sudah dipanaskan. Saat suhu turun hingga 80oC, Polimer SBR dari beberapa variasis komposisi, dimasukkan ke dalam campuran hotmix dan diaduk. Jumlah polimer SBR divariasi dengan perbandingan terhadap aspal yaitu 1:0, 1:1, 1:3 dan 1:6. Setelah campuran ini homogen, dimasukkan ke dalam cetakan dan dilakukan pemadatan 2x75 kali tumbukan untuk uji stabilitas Marshall. Hasil uji Marshall adalah: Stabilitas berada antara 111,33-632,02 Kg, Kelelehan berada antara 5,00-6,70 mm, VIM berada antara 10,9717,87, VMA berada antara 18,16-24,61 dan Nilai MQ berada antara 16,87-117,04 Kg/mm. Hasil uji kinerja karakteristik Marshall menyatakan beberapa nilai karateristik tidak memenuhi kedalam spesifikasi. Secara hasil nilai karateristik rata-rata dan dilihat secara fisik, hasil yang mendekati nilai optimum pada penggunaan campuran Hotmix dan Polimer SBR sebesar 1%.

.....This work has been performed to evaluate the influence of SBR polymer on asphalt hotmix using Indonesian local asphalt. Using technical standard compositions of agregates and local asphalt were heated separately until 150 C degree and then mixed togehether until the homogenity reached. Following this mixtured procedure, this materials were cooled in air until the temperature reached to 80 C degree and then compacted for Marshall test. The SBR polymer composition were variated by ration between polymer and asphalt of 1:0, 1:1, 1:3 and 1:6 were compacted using Proctor standard procedure.

The Mashall test shows the results: stability between 111,33-632,02 kg; flow between 5,00-6,70 mm, VIM between 10,9717,87; VMA between 18,16-24,61; and MQ value between 16,87-117,04 kg/mm. The result of the testing performance of marshall characteristic states that some of the characteristic score do not meet into the specification. Physically, the result of the average characteristic score is close to the optimum score in the use of Hotmix mixture and 2% SBR polymer.