

ABSTRAK

Pengaruh Penambahan Kadar Lignin Terhadap Karakteristik Mekanik Campuran Aspal Panas

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Kebutuhan bahan aspal sebagai salah satu bahan pembuatan prasarana jalan tidak diiringi dengan peningkatan kualitasnya, sehingga perlu dilakukan peningkatan bahan aspal guna memeperpanjang umur perkerasan. Penelitian ini dilakukan untuk mengetahui pengaruh penambahan variasi kadar lignin pada aspal penetrasi 60/70 terhadap karakteristik *Marshall* dan mencari kadar lignin terbaik. Dilakukan pengujian dengan variasi penambahan kadar lignin sebesar 0%, 3%, 6% dengan suhu rendaman standar pengujian dan suhu percobaan sesuai dengan kondisi cuaca di Indonesia yang mempunyai dua musim, yaitu musim panas dan musim penghujan yang disimulasikan dengan variasi suhu rendaman 45°C dan suhu tinggi 75°C, selanjutnya akan dibandingkan dengan hasil penelitian terdahulu yang menggunakan aspal termodifikasi Jaya Aspal Polimer (JAP) dan Taftpack-Super (TPS) 5%.

Kata kunci : AC-WC, Aspal Modifikasi, Indeks Kekuatan Sisa (IKS)

ABSTRACT

Effect Of Adding Lignin Levels To The Mechanical Characteristics Of Hot Asphalt Mixtures

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The need for asphalt material as one of the materials for making road infrastructure is not accompanied by an increase in its quality, so it is necessary to increase the asphalt material to prolong the life of the pavement. This study was conducted to determine the effect of adding lignin variation on 60/70 penetration asphalt to Marshall characteristics and looking for the best lignin content. Tests were carried out with variations in lignin content of 0%, 3%, 6% with the test bath immersion temperature and experimental temperature according to weather conditions in Indonesia which have two seasons, namely summer and rainy season which are simulated with variations in bath temperature of 45°C and high temperatures of 75°C, then compared with the results of previous studies using modified Jaya Asphalt Polymer (JAP) and Taftpack-Super asphalt (TPS) 5%.

Keywords: AC-WC, Asphalt Modification, Time Strength Index (IKS)