

Kajian Skid Resistance Daur Ulang Aspal dan Agregat Limbah Beton Semen dengan Variasi Suhu = Skid Resistance Study of Reclaimed Asphalt Pavement and Recycled Concrete Aggregate with Temperature Variation

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Abstrak

Skid resistance (kekesatan jalan) merupakan salah satu parameter yang digunakan untuk mengevaluasi keamanan permukaan perkerasan jalan. Penelitian ini dilakukan untuk mengevaluasi pengaruh penambahan RCA terhadap nilai skid resistance campuran aspal panas spesifikasi AC-WC dengan material utama RAP. Dilakukan dua jenis pengujian skid, yaitu skid standar dan immersion. Pengujian dilakukan dengan variasi suhu 26, 30, 35, 40, 45, dan 50 menggunakan alat British Pendulum Tester (BPT). Hasil pengujian Marshall menunjukkan kadar aspal terbaik untuk campuran dengan RCA sebesar 9% dan tanpa RCA sebesar 8,5%. Hasil pengujian skid resistance menunjukkan terjadi penurunan nilai skid number (SN) dengan kenaikan suhu pengujian. Hasil pengujian skid immersion menunjukkan nilai SN yang lebih rendah dibandingkan hasil pengujian skid standar. Penambahan RCA tidak meningkatkan nilai SN campuran aspal dengan material utama RAP, namun mampu meningkatkan nilai SN campuran aspal dengan material utama agregat baru (NA).

.....Skid resistance is one of the parameters used to evaluate the safety of the road pavement surface. This study was conducted to evaluate the effect of adding RCA to the skid resistance value of hot mix asphalt mixture with AC-WC specifications with RAP as the main material. Two types of skid testing were performed, namely standard skid and immersion. Tests were carried out with variations in temperature 26, 30, 35, 40, 45, and 50 using the British Pendulum Tester (BPT). Marshall test results show that the best asphalt content for a mixture with RCA is 9% and without RCA is 8.5%. The results of the skid resistance test show that there is a decrease in the value of the skid number (SN) with an increase in the test temperature. The skid immersion test results show a lower SN value than the standard skid test results. The addition of RCA did not increase the SN value of the asphalt mixture with RAP as the main material, but it was able to increase the SN value of the asphalt mixture with the natural aggregate (NA) as the main material.