

ABSTRAK**PENGARUH KADAR *FILLER* ABU TEMPURUNG KELAPA DAN SERBUK KACA TERHADAP KARAKTERISTIK *MARSHALL* PADA CAMPURAN LASTON AC-WC****(Studi Kasus : Cipondoh, Kota Tangerang)****Oleh : Bayu Dhian Pratama****Dosen Pembimbing : Dr. Ir. Indrayati T.M, DEA**

Dengan banyaknya produksi makanan dan minuman yang terus meningkat berdampak pada banyaknya limbah yang ada khususnya di wilayah Cipondoh, Kota Tangerang, diantaranya yaitu dengan adanya limbah tempurung kelapa dan limbah botol kaca. Limbah tersebut jika dibuang memerlukan tempat pembuangan dan membutuhkan biaya yang tidak sedikit. Tujuan penelitian ini adalah mengetahui seberapa besar pengaruh penambahan serbuk kaca dan abu tempurung kelapa terhadap stabilitas marshall. Metode yang digunakan pada penelitian ini adalah Marshall Test yaitu pemeriksaan stabilitas, kelelahan, VFA (Void Filled With Asphalt), VIM (Void In Mix), VMA (Void In Material Agregat), MQ (Marshall Quotient),

Berdasarkan hasil Marshall Test campuran memakai filler abu tempurung kelapa (100%), filler serbuk kaca (100%), dan filler abu tempurung kelapa (50%) dicampur serbuk kaca (50%) diperoleh nilai VMA, Stabilitas, Kelelahan, dan MQ yang memenuhi syarat SNI, hanya nilai VFA dan VIM yang tidak memenuhi syarat. Nilai stabilitas dengan filler serbuk kaca (100%) sebesar 1770.15 Kg (rendaman 30 menit) dan 1605.346 Kg (rendaman 24 jam), nilai stabilitas dengan filler abu tempurung kelapa (100%) sebesar 1259.69 Kg (rendaman 30 menit) dan 1114.179 Kg (rendaman 24 jam), dan nilai stabilitas dengan filler abu tempurung kelapa (50%) dicampur serbuk kaca (50%) sebesar 1517.04 Kg (rendaman 30 menit) dan 1403.665 Kg (rendaman 24 jam).

Hasil IKS pada campuran filler serbuk kaca (100%) sebesar 90.69%, pada campuran filler abu tempurung kelapa (100%) sebesar 88.45% dan pada campuran filler serbuk kaca (50%) dcampur abu tempurung kelapa (50%) sebesar 92.53%. Ketiganya memenuhi syarat minimal yaitu sebesar >75%.

Kata Kunci: IKS, Serbuk Kaca, Abu Tempurung Kelapa, Kelelahan, Marshall Test, MQ (Marshall Quotient), Stabilitas, VFA (Void Filled With Asphalt), VIM (Void In Mix), VMA (Void In Material Agregat)

ABSTRACT**THE EFFECT OF COCONUT SHELL AND GLASS POWDER FILLER LEVELS ON MARSHALL CHARACTERISTICS IN AC-WC LASTON MIXTURE****(Case Study: Cipondoh, Tangerang City)****By : Bayu Dhian Pratama****Counselor : Dr. Ir. Indrayati T.M, DEA**

With the increasing number of food and beverage production, it has an impact on the amount of waste that exists, especially in the Cipondoh area, Tangerang City, including the presence of coconut shell waste and glass bottle waste. If the waste is disposed of, it requires a disposal site and requires no small amount of money. The purpose of this study was to determine how much influence the addition of glass powder and coconut shell ash to the stability of the Marshall. The method used in this study is Marshall Test, which is checking stability, flow, VFA (Void Filled With Asphalt), VIM (Void In Mix), VMA (Void In Material Aggregate), MQ (Marshall Quotient).

Based on the mixed Marshall Test results using coconut shell ash filler (100%), glass powder filler (100%), and coconut shell ash filler (50%) mixed with glass powder (50%) obtained VMA, Stability, Flow and MQ values meet SNI requirements, only VFA and VIM values do not meet the requirements. The stability value with glass powder filler (100%) is 1770.15 Kg (30 minute immersion) and 1605.346 Kg (24 hour immersion), the stability value with coconut shell filler (100%) is 1259.69 Kg (30 minute immersion) and 1114.179 Kg (24 hour immersion), and the stability value with coconut shell ash filler (50%) mixed with glass powder (50%) is 1517.04 Kg (30 minute immersion) and 1403.665 Kg (24 hour immersion).

The results of IKS in the glass powder filler mixture (100%) by 90.69%, in the coconut shell ash filler mixture (100%) by 88.45% and in the glass powder filler mixture (50%) mixed with coconut shell ash (50%) by 92.53%. All three meet the minimum requirements of > 75%.

Keywords: *IKS, Glass Powder, Coconut Shell Ash, Flow, Marshall Test, MQ (Marshall Quotient), Stability, VFA (Void Filled With Asphalt), VIM (Void In Mix), VMA (Void In Material Aggregate).*