

DAFTAR ISI

ABSTRAK	ERROR! BOOKMARK NOT DEFINED.
ABSTRACT	ERROR! BOOKMARK NOT DEFINED.
LEMBAR PENGESAHAN	ERROR! BOOKMARK NOT DEFINED.
HALAMAN PERNYATAAN	ERROR! BOOKMARK NOT DEFINED.
KATA PENGANTAR	ERROR! BOOKMARK NOT DEFINED.
DAFTAR ISI	I
DAFTAR TABEL	ERROR! BOOKMARK NOT DEFINED.
DAFTAR GAMBAR	ERROR! BOOKMARK NOT DEFINED.
DAFTAR LAMPIRAN	XI

BAB I	ERROR! BOOKMARK NOT DEFINED.
PENDAHULUAN	ERROR! BOOKMARK NOT DEFINED.
1.1 Latar Belakang Masalah	Error! Bookmark not defined.
1.2 Identifikasi Masalah	Error! Bookmark not defined.
1.3 Pembatasan Masalah	Error! Bookmark not defined.
1.4 Rumusan Masalah	Error! Bookmark not defined.
1.5 Tujuan Penelitian	Error! Bookmark not defined.
1.6 Manfaat Penelitian	Error! Bookmark not defined.
BAB II	ERROR! BOOKMARK NOT DEFINED.

KERANGKA TEORITIS, KERANGKA BERPIKIR DAN HIPOTESIS	
PENELITIAN	ERROR! BOOKMARK NOT DEFINED.
2.1 Kerangka Teori	Error! Bookmark not defined.
2.1.1 Perkerasan Jalan	Error! Bookmark not defined.
2.1.1.1 Jenis Perkerasan dan Komponennya	Error! Bookmark not defined.
2.1.1.2 Lapis Perkerasan Lentur	Error! Bookmark not defined.
2.1.2 Lapis Aspal Beton (LASTON)	Error! Bookmark not defined.
2.1.3 Aspal	Error! Bookmark not defined.
2.1.3.1 Jenis-jenis Aspal	Error! Bookmark not defined.
2.1.3.2 Sifat Kimia Aspal	Error! Bookmark not defined.
2.1.3.3 Sifat Fisik Aspal	Error! Bookmark not defined.
2.1.4 Agregat	Error! Bookmark not defined.
2.1.4.1 Gradasi Agregat	Error! Bookmark not defined.
2.1.4.2 Agregat Kasar	Error! Bookmark not defined.
2.1.4.3 Agregat Halus	Error! Bookmark not defined.
2.1.4.4 Berat Jenis Agregat	Error! Bookmark not defined.
2.1.4.5 Kadar Lumpur Agregat	Error! Bookmark not defined.
2.1.5 Bahan Pengisi (<i>filler</i>)	Error! Bookmark not defined.
2.1.6 Limbah Serbuk Batu Marmer	Error! Bookmark not defined.
2.1.7 Metode Marshall	Error! Bookmark not defined.
2.1.7.1 Stabilitas	Error! Bookmark not defined.
2.1.7.2 Kelelahan (<i>Flow</i>)	Error! Bookmark not defined.
2.1.7.3 Rongga Terisi Aspal (VFB)	Error! Bookmark not defined.
2.1.7.4 Marshall Quotient (MQ)	Error! Bookmark not defined.
2.1.7.5 Rongga Dalam Campuran (VIM)	Error! Bookmark not defined.

2.1.7.6 Rongga Antar Mineral Agregat (VMA) ..	Error! Bookmark not defined.
2.1.8 Penelitian Relevan	Error! Bookmark not defined.
2.2 Kerangka Berpikir	Error! Bookmark not defined.
2.3 Hipotesis Penelitian	Error! Bookmark not defined.
BAB III	ERROR! BOOKMARK NOT DEFINED.
METODOLOGI PENELITIAN	ERROR! BOOKMARK NOT DEFINED.
3.1 Tempat dan Waktu Penelitian	Error! Bookmark not defined.
3.2 Metode Penelitian	Error! Bookmark not defined.
3.3 Rancangan Penelitian	Error! Bookmark not defined.
3.4 Populasi dan Sampel	Error! Bookmark not defined.
3.4.1 Populasi	Error! Bookmark not defined.
3.4.2 Sampel	Error! Bookmark not defined.
3.5 Prosedur Penelitian	Error! Bookmark not defined.
3.5.1 Tahap Persiapan	Error! Bookmark not defined.
3.5.1.1 Peralatan	Error! Bookmark not defined.
3.5.1.2 Bahan	Error! Bookmark not defined.
3.5.2 Pemeriksaan Bahan	Error! Bookmark not defined.
3.5.3 Perencanaan Campuran Agregat	Error! Bookmark not defined.
3.5.4 Pembuatan Benda Uji	Error! Bookmark not defined.
3.5.5 Pengujian Benda Uji	Error! Bookmark not defined.
3.5.5.1 Persiapan Pengujian	Error! Bookmark not defined.
3.5.5.2 Cara Pengujian	Error! Bookmark not defined.
3.6 Teknik Pengambilan Data	Error! Bookmark not defined.
3.7 Teknik Analisis Data	Error! Bookmark not defined.
3.8 Hipotesis Statistik	Error! Bookmark not defined.
BAB IV	ERROR! BOOKMARK NOT DEFINED.
HASIL PENELITIAN DAN PEMBAHASAN	ERROR! BOOKMARK NOT DEFINED.
4.1 Deskripsi Hasil Uji Pendahuluan	Error! Bookmark not defined.
4.1.1 Pengujian <i>Filler</i>	Error! Bookmark not defined.
4.1.2 Pengujian Aspal	Error! Bookmark not defined.
4.1.3 Pengujian Agregat Kasar	Error! Bookmark not defined.
4.1.4 Pengujian Agregat Halus	Error! Bookmark not defined.
4.2 Pembuatan Benda Uji	Error! Bookmark not defined.
4.2.1 Perencanaan Campuran	Error! Bookmark not defined.
4.2.2 Pencampuran Bahan Pembuatan Benda Uji	Error! Bookmark not defined.
4.2.3 Pemadatan Benda Uji	Error! Bookmark not defined.
4.2.4 Perendaman Benda Uji	Error! Bookmark not defined.
4.3 Deskripsi Hasil Pengujian <i>Marshall</i>	Error! Bookmark not defined.
4.3.1 Stabilitas	Error! Bookmark not defined.
4.3.2 Kelelahan (<i>Flow</i>)	Error! Bookmark not defined.
4.3.3 <i>Marshall Quotient</i> (MQ)	Error! Bookmark not defined.
4.3.4 <i>Void in Mineral Aggregates</i> (VMA)	Error! Bookmark not defined.
4.3.5 <i>Void Filled with Bitumen</i> (VFB)	Error! Bookmark not defined.
4.3.6 <i>Void In the Mix</i> (VIM)	Error! Bookmark not defined.
4.4 Pengujian Hipotesis	Error! Bookmark not defined.
4.5 Pembahasan	Error! Bookmark not defined.
4.6 Keterbatasan Penelitian	Error! Bookmark not defined.

BAB V	ERROR! BOOKMARK NOT DEFINED.
KESIMPULAN DAN SARAN	ERROR! BOOKMARK NOT DEFINED.
5.1 Kesimpulan	Error! Bookmark not defined.
5.2 Saran	Error! Bookmark not defined.
DAFTAR PUSTAKA	ERROR! BOOKMARK NOT DEFINED.

DAFTAR TABEL

Tabel 2.1 Standar Gradasi Agregat untuk Campuran Aspal.....	13
Tabel 2.2 Ketentuan Sifat Campuran Laston.....	14
Tabel 2.3 Persyaratan Aspal Keras.....	16
Tabel 2.4 Ukuran Butir Agregat	21
Tabel 2.5 Ketentuan Agregat Kasar.....	23
Tabel 2.6 Persyaratan Agregat Halus.....	25
Tabel 2.7 Persyaratan Berat Jenis.....	26
Tabel 2.8 Persyaratan Gradasi <i>Filler</i>	27
Tabel 2.9 Daerah Penghasil Batu Marmer.....	28
Tabel 3.1 Jumlah sampel benda uji.....	43
Tabel 3.2 Persyaratan Bahan.....	47
Tabel 4.1 Hasil Pengujian Bahan Pengisi.....	54
Tabel 4.2 Analisa Saringan Limbah Serbuk Batu Marmer dan Semen.....	54
Tabel 4.3 Pengujian Uji Pendahuluan Aspal.....	55
Tabel 4.4 Hasil Pengujian Agregat Kasar.....	56
Tabel 4.5 Hasil Pengujian Agregat Halus.....	56
Tabel 4.6 Proporsi Campuran.....	57
Tabel 4.7 Hasil Pengujian <i>Mann-Whitney</i>	66
Tabel 4.8 Hasil Pengujian <i>Marshall</i>	67

DAFTAR GAMBAR

Gambar 2.1 Komponen Perkerasan Lentur.....	9
Gambar 2.2 Komponen Perkerasan Kaku.....	9
Gambar 2.3 Komponen Perkerasan Komposit.....	10
Gambar 2.4 Lapisan Perkerasan Jalan	11
Gambar 2.5 Serbuk Limbah Marmer.....	30
Gambar 3.1 Diagram Alur Penelitian.....	42
Gambar 4.1 Pengadukan Benda Uji.....	58
Gambar 4.2 Pemasakan dan Contoh Benda Uji	58
Gambar 4.3 Perendaman Benda Uji di dalam <i>Water Bath</i>	59
Gambar 4.4 Grafik Stabilitas dengan Kadar Aspal.....	60
Gambar 4.5 Grafik Flow dengan Kadar Aspal	61
Gambar 4.6 Grafik MQ dengan Kadar Aspal.....	62
Gambar 4.7 Grafik VMA dengan Kadar Aspal.....	63
Gambar 4.8 Grafik VFB dengan Kadar Aspal.....	64
Gambar 4.9 Grafik VIM dengan Kadar Aspal.....	65

DAFTAR LAMPIRAN

Lampiran 1. Surat Izin Laboratorium.....	69
Lampiran 2. Surat Balasan Laboratorium.....	70
Lampiran 3. Lembar Konsultasi Skripsi.....	71
Lampiran 4. Uji Aspal - Berat jenis.....	76
Lampiran 5. Uji Aspal – Daktilitas.....	77
Lampiran 6. Uji Aspal - Penetrasi.....	78
Lampiran 7. Uji Aspal – Titik nyala & bakar.....	79
Lampiran 8. Uji Aspal - Titik lembek.....	80
Lampiran 9. Uji Agg. Kasar - BJ & penyerapan.....	81
Lampiran 10. Uji Agg. Kasar - Los Angeles.....	82
Lampiran 11. Uji Agg. Halus - BJ & penyerapan.....	83
Lampiran 12. Uji Agg. Halus - Kadar Lumpur	84
Lampiran 13. Uji <i>Filler</i> - BJ Limbah Marmer.....	85
Lampiran 14. Perkiraan Harga.....	86
Lampiran 15. Analisa Saringan Agregat.....	88
Lampiran 16. Perencanaan Cara Analitis.....	89
Lampiran 17. Analisa Uji Kimia Limbah Serbuk Batu Marmer.....	90
Lampiran 18. Hasil Marshall.....	94
Lampiran 19. Dokumentasi.....	96
Lampiran 20. Daftar Riwayat Hidup.....	97

