LABORATORIUM JALAN RAYA

FAKULTAS TEKNIK SIPIL DAN PERENCANAAN UII

Jl. Kaliurang Km.14,4 Telp. 95330 Yogyakarta 55584

Pekerjaan Test Marshall — Dikerjakan Oleh : 1. Irwan Sugiarto
Jenis Campura Aspal Beton — 2. Sandhi Nugroho
Tanggal 26 Februari 2000 — Diperiksa Oleh :

Batu kapur : batu pecah = 33.33% : 66.67%

PERHITUNGAN TEST MARSHALL

No	t	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
1	7	4.71	4.5	1175	1183	668.00	515	2.281553	2.429625	9.84	84.06186	6.09	15.93814	61.76199	6.094426	453	1552.748	1308.97	3.81
2	6.98	4.71	4.5	1178	1183	672.00	511	2.305284	2.429625	9.95	84.93619	5.12	15.06381	66.02641	5.117717	447	1532.182	1294.69	3.302
3	7.09	4.71	4.5	1180	1185	674.00	511	2.309198	2.429625	9.96	85.08039	4.96	14.91961	66.77777	4.956627	451	1545.893	1289.27	3.048
4	6.89	5.26	5	1177	1184	670.00	514	2.289883	2.412831	10.98	83.92705	5.10	16.07295	68.29728	5.095563	465	1593.881	1362.01	4.064
5	6.88	5.26	5	1182	1188	672.00	516	2.290698	2.412831	10.98	83.9569	5.06	16.0431	68.44869	5.061809	549	1881.807	1609.24	3.602
6	7	5.26	5	1175	1182	669.00	513	2.290448	2.412831	10.98	83.94776	5.07	16.05224	68.40227	5.072143	439	1504.76	1269.37	3.602
7	6.85	5.82	5.5	1177	1182	670.00	512	2.298828	2.396267	12.12	83.81144	4.07	16.18856	74.88188	4.066262	443	1518.471	1302.97	3.556
8	6.8	5.82	5.5	1183	1192	677.00	515	2.297087	2.396267	12.11	83.74798	4.14	16.25202	74.53298	4.138906	447	1532.182	1326.31	3.556
9	6.82	5.82	5.5	1173	1179	668.00	511	2.295499	2.396267	12.10	83.69007	4.21	16.30993	74.21699	4.205191	495	1696.712	1462.34	3.81
10	6.77	6.38	6	1181	1185	670.00	515	2.293204	2.379929	13.19	83.16403	3.64	16.83597	78.35586	3.644002	448	1535.61	1337.52	3.81
11	6.63	6.38	6	1183	1189	675.00	514	2.301556	2.379929	13.24	83.46694	3.29	16.53306	80.08207	3.293044	441	1511.616	1360.45	3.81
12	6.81	6.38	6	1179	1188	672.00	516	2.284884	2.379929	13.14	82.8623	3.99	17.1377	76.697	3.993599	453	1552.748	1294.99	3.81
13	6.76	6.95	6.5	1171	1179	665.00	514	2.27821	2.363812	14.20	82.1808	3.62	17.8192	79.67732	3.621337	378	1295.671	1131.31	4.826
14	6.58	6.95	6.5	1165	1172	661.00	511	2.279843	2.363812	14.21	82.23972	3.55	17.76028	79.99896	3.55224	410	1405.357	1282.43	3.556
15	6.61	6.95	6.5	1170	1175	664.00	511	2.289628	2.363812	14.27	82.59268	3.14	17.40732	81.97137	3.138301	428	1467.056	1327.72	4.318

t = tebal benda uji

a = % aspal terhadap batuan

b = % aspal terhadap campuran

c = berat kering/sblm direndam

d = berat dlm keadaan SSD

e = berat didalam air (gr)

f = Vol (isi) = d - e

g = berat isi sampel $= \frac{c}{f}$

h = B.J maksimum (teoritis)

$$\left\{100 : \left(\frac{\%\,\text{aggr}}{\text{B.J Aggr}} + \frac{\%\,\text{aspal}}{\text{B.J Aspal}}\right)\right\}$$

$$i = \frac{b \times g}{\text{B.J aspal}}$$

$$j = \frac{(100 - b)\,g}{\text{B.J agregat}}$$

k = (100-i-j) jumlah kandungan rongga

l = (100-j) rongga terhadap agregat

$m = \left(100 \times \frac{i}{l}\right)$ rongga yang terisi aspal (VFWA)

N = rongga yang terisi campuran $100 - \left(100 \times \frac{g}{h}\right)$

o = pembacaan arloji (stabilitas)

p = o x kalibrasi proving ring

q = p x koreksi tebal sampel (STABILITAS)

r = FLOW (kelelehan plastis)

Suhu Pencampuran : ±160°C

Suhu Pemadatan : ±140°C

Suhu Water Bath : 60°C

B.J. Aspal : 1,043

B.J. Agregat : 2,592

Tanda Tangan :

Syamsudin