**LAMPIRAN A**

**HASIL UJI MUTU FISIK GRANUL**

<table>
<thead>
<tr>
<th>Mutu fisik yang diuji</th>
<th>Repliksi</th>
<th>Formula Tablet</th>
<th>Persyaratan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Buccoadhesive</strong> Propranolol Hcl</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>F1(-1)</td>
<td>F2(a)</td>
</tr>
<tr>
<td>Kadar air (Persen)</td>
<td>I</td>
<td>3,05</td>
<td>3,27</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>3,14</td>
<td>3,05</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>3,25</td>
<td>3,19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,15</td>
<td>3,17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0,10</td>
<td>0,11</td>
</tr>
<tr>
<td>Waktu alir (detik)</td>
<td>I</td>
<td>2,38</td>
<td>2,58</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>2,43</td>
<td>2,39</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>2,54</td>
<td>2,32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,45</td>
<td>2,43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0,08</td>
<td>0,13</td>
</tr>
<tr>
<td>Sudut diam (derajat)</td>
<td>I</td>
<td>32,01</td>
<td>30,58</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>33,84</td>
<td>34,62</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>34,97</td>
<td>31,53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33,61</td>
<td>32,24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,49</td>
<td>2,11</td>
</tr>
<tr>
<td>Indeks kompresibilitas (persen)</td>
<td>I</td>
<td>17,65</td>
<td>15,39</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>22,50</td>
<td>14,29</td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>18,18</td>
<td>20,59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20,34</td>
<td>16,76</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,05</td>
<td>3,37</td>
</tr>
</tbody>
</table>

**Contoh perhitungan sudut diam :**

Formula 1 (-1) Replikasi I

W persegipanjang = 4,69 gram
W lingkaran = 0,49 gram
Luas persegipanjang = 29 x 24 = 696 cm²

Luas lingkaran = \( \frac{0,49}{4,69} \times 696 = 72,7164 \)
L = π r²

\[ r^2 = \frac{L}{\pi} = \sqrt{\frac{72,7164}{3,14}} = 4,8 \text{ cm} \]

\[ \tan \alpha = \frac{t}{r} = \frac{3}{4,8} = 0,6 \]

\[ \alpha = 32,01° \]

Contoh perhitungan indeks kompresibilitas:

Formula 1 (-1) Replikasi I

Berat gelas ukur = 125,40 gram (W₁)

Berat gelas ukur + granul = 147,60 gram (W₂)

V₀ = 78 mL

V₁ = 65 mL

\[ \text{Bj nyata} = \frac{(W₂ - W₁)}{V₀} = \frac{(147,60 - 125,40)}{78} = 0,28 \]

\[ \text{Bj mampat} = \frac{(W₂ - W₁)}{V₁} = \frac{(147,60 - 125,40)}{65} = 0,34 \]

% Kompresibilitas = \[ \left[ 1 - \frac{\text{Bj nyata}}{\text{Bj mampat}} \right] \times 100\% = \left[ 1 - \frac{0,28}{0,34} \right] \times 100\% = 17,65\% \]
LAMPIRAN B
HASIL UJI PERCOBAAN WAKTU ALIR GRANUL

Hasil Uji Waktu Alir Untuk 100 gram Granul

<table>
<thead>
<tr>
<th>Replikasi</th>
<th>Berat Granul (gram)</th>
<th>Waktu (detik)</th>
<th>Persyaratan</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>100,00</td>
<td>9,6</td>
<td>≤ 10 detik (Lieberman et al., 1989)</td>
</tr>
<tr>
<td>II</td>
<td>100,56</td>
<td>10,0</td>
<td>≤ 10 detik (Lieberman et al., 1989)</td>
</tr>
<tr>
<td>III</td>
<td>100,52</td>
<td>9,6</td>
<td>≤ 10 detik (Lieberman et al., 1989)</td>
</tr>
</tbody>
</table>

Hasil Uji Waktu Alir Untuk 25 gram Granul

<table>
<thead>
<tr>
<th>Replikasi</th>
<th>Berat Granul (gram)</th>
<th>Waktu (detik)</th>
<th>Persyaratan</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>25,54</td>
<td>2,5</td>
<td>≤ 2,5 detik</td>
</tr>
<tr>
<td>II</td>
<td>25,16</td>
<td>2,5</td>
<td>≤ 2,5 detik</td>
</tr>
<tr>
<td>III</td>
<td>25,23</td>
<td>2,4</td>
<td>≤ 2,5 detik</td>
</tr>
</tbody>
</table>

Group Statistics

<table>
<thead>
<tr>
<th>hubungan</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>waktu</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 gram granul</td>
<td>3</td>
<td>2.4433</td>
<td>.01155</td>
<td>.00667</td>
</tr>
<tr>
<td>100 gram granul</td>
<td>3</td>
<td>2.4333</td>
<td>.05774</td>
<td>.03333</td>
</tr>
</tbody>
</table>

Independent Samples Test

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Waktu Equal variances assumed</td>
<td>9.846</td>
</tr>
<tr>
<td>Waktu Equal variances not assumed</td>
<td></td>
</tr>
</tbody>
</table>
LAMPIRAN C
HASIL UJI KESERAGAMAN KANDUNGAN TABLET BUKAL PROPRANOLOL HCl

Hasil Uji Keseragaman Kandungan Tablet F1 (-1) Replikasi I

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,816</td>
<td>49,61</td>
<td>151,4</td>
<td>50,87</td>
<td>97,52</td>
</tr>
<tr>
<td>0,881</td>
<td>53,98</td>
<td>153,8</td>
<td>51,68</td>
<td>104,46</td>
</tr>
<tr>
<td>0,799</td>
<td>48,47</td>
<td>151,7</td>
<td>50,97</td>
<td>95,09</td>
</tr>
<tr>
<td>0,837</td>
<td>51,02</td>
<td>150,5</td>
<td>50,57</td>
<td>100,90</td>
</tr>
<tr>
<td>0,875</td>
<td>53,58</td>
<td>148,2</td>
<td>49,80</td>
<td>107,59</td>
</tr>
<tr>
<td>0,879</td>
<td>53,85</td>
<td>153,5</td>
<td>51,58</td>
<td>104,40</td>
</tr>
<tr>
<td>0,868</td>
<td>53,11</td>
<td>152,7</td>
<td>51,31</td>
<td>103,51</td>
</tr>
<tr>
<td>0,877</td>
<td>53,71</td>
<td>154,2</td>
<td>51,81</td>
<td>103,67</td>
</tr>
<tr>
<td>0,891</td>
<td>54,65</td>
<td>153,2</td>
<td>51,48</td>
<td>106,17</td>
</tr>
<tr>
<td>0,874</td>
<td>53,51</td>
<td>153,5</td>
<td>51,58</td>
<td>103,75</td>
</tr>
</tbody>
</table>

\[ \bar{X} = 102,71 \]

SD 3,84
KV 3,74

Hasil Uji Keseragaman Kandungan Tablet F2 (a) Replikasi I

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,799</td>
<td>48,47</td>
<td>152,7</td>
<td>51,31</td>
<td>94,47</td>
</tr>
<tr>
<td>0,879</td>
<td>53,85</td>
<td>152,6</td>
<td>51,27</td>
<td>105,02</td>
</tr>
<tr>
<td>0,798</td>
<td>48,40</td>
<td>152,4</td>
<td>51,21</td>
<td>94,52</td>
</tr>
<tr>
<td>0,846</td>
<td>51,63</td>
<td>145,3</td>
<td>48,82</td>
<td>105,75</td>
</tr>
<tr>
<td>0,877</td>
<td>53,71</td>
<td>153,5</td>
<td>51,58</td>
<td>104,14</td>
</tr>
<tr>
<td>0,869</td>
<td>53,17</td>
<td>154,9</td>
<td>52,05</td>
<td>102,16</td>
</tr>
<tr>
<td>0,881</td>
<td>53,98</td>
<td>154,5</td>
<td>51,91</td>
<td>103,98</td>
</tr>
<tr>
<td>0,884</td>
<td>54,18</td>
<td>149,7</td>
<td>50,30</td>
<td>107,72</td>
</tr>
<tr>
<td>0,829</td>
<td>50,48</td>
<td>153,7</td>
<td>51,64</td>
<td>97,76</td>
</tr>
<tr>
<td>0,893</td>
<td>54,79</td>
<td>153,8</td>
<td>51,68</td>
<td>106,02</td>
</tr>
</tbody>
</table>

\[ \bar{X} = 102,15 \]

SD 4,84
KV 4,74
<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.873</td>
<td>53,44</td>
<td>152</td>
<td>51,07</td>
<td>104,64</td>
</tr>
<tr>
<td>0.884</td>
<td>54,18</td>
<td>154,7</td>
<td>51,98</td>
<td>104,24</td>
</tr>
<tr>
<td>0.824</td>
<td>50,15</td>
<td>155,1</td>
<td>52,11</td>
<td>96,23</td>
</tr>
<tr>
<td>0.833</td>
<td>50,75</td>
<td>155,6</td>
<td>52,28</td>
<td>97,08</td>
</tr>
<tr>
<td>0.875</td>
<td>53,58</td>
<td>153,9</td>
<td>51,71</td>
<td>103,61</td>
</tr>
<tr>
<td>0.839</td>
<td>51,16</td>
<td>153,2</td>
<td>51,48</td>
<td>99,38</td>
</tr>
<tr>
<td>0.83</td>
<td>50,55</td>
<td>147,6</td>
<td>49,59</td>
<td>101,93</td>
</tr>
<tr>
<td>0.87</td>
<td>53,24</td>
<td>154,6</td>
<td>51,95</td>
<td>102,49</td>
</tr>
<tr>
<td>0.819</td>
<td>49,81</td>
<td>154,2</td>
<td>51,81</td>
<td>96,14</td>
</tr>
<tr>
<td>0.816</td>
<td>49,61</td>
<td>151,9</td>
<td>51,04</td>
<td>97,20</td>
</tr>
<tr>
<td></td>
<td><strong>X</strong></td>
<td></td>
<td></td>
<td><strong>100,29</strong></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td></td>
<td></td>
<td><strong>3,46</strong></td>
</tr>
<tr>
<td></td>
<td>KV</td>
<td></td>
<td></td>
<td><strong>3,45</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.797</td>
<td>48,33</td>
<td>154,1</td>
<td>51,78</td>
<td>93,35</td>
</tr>
<tr>
<td>0.851</td>
<td>51,96</td>
<td>152,4</td>
<td>51,21</td>
<td>101,48</td>
</tr>
<tr>
<td>0.828</td>
<td>50,42</td>
<td>151,8</td>
<td>51,00</td>
<td>98,85</td>
</tr>
<tr>
<td>0.797</td>
<td>48,33</td>
<td>157,2</td>
<td>52,82</td>
<td>91,51</td>
</tr>
<tr>
<td>0.87</td>
<td>53,24</td>
<td>148,3</td>
<td>49,83</td>
<td>106,85</td>
</tr>
<tr>
<td>0.873</td>
<td>53,44</td>
<td>153,9</td>
<td>51,71</td>
<td>103,35</td>
</tr>
<tr>
<td>0.834</td>
<td>50,82</td>
<td>152,9</td>
<td>51,37</td>
<td>98,92</td>
</tr>
<tr>
<td>0.824</td>
<td>50,15</td>
<td>153,7</td>
<td>51,64</td>
<td>97,10</td>
</tr>
<tr>
<td>0.849</td>
<td>51,83</td>
<td>154,1</td>
<td>51,78</td>
<td>100,10</td>
</tr>
<tr>
<td>0.884</td>
<td>54,18</td>
<td>150,9</td>
<td>50,70</td>
<td>106,86</td>
</tr>
<tr>
<td></td>
<td><strong>X</strong></td>
<td></td>
<td></td>
<td><strong>99,84</strong></td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td></td>
<td></td>
<td><strong>5,10</strong></td>
</tr>
<tr>
<td></td>
<td>KV</td>
<td></td>
<td></td>
<td><strong>5,11</strong></td>
</tr>
</tbody>
</table>
### Hasil Uji Keseragaman Kandungan Tablet F1 (-1) Replikasi II

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,754</td>
<td>45,44</td>
<td>145,4</td>
<td>48,85</td>
<td>93,02</td>
</tr>
<tr>
<td>0,899</td>
<td>55,19</td>
<td>146,7</td>
<td>49,29</td>
<td>111,97</td>
</tr>
<tr>
<td>0,776</td>
<td>46,92</td>
<td>145,2</td>
<td>48,79</td>
<td>96,18</td>
</tr>
<tr>
<td>0,784</td>
<td>47,46</td>
<td>146,5</td>
<td>49,22</td>
<td>96,41</td>
</tr>
<tr>
<td>0,878</td>
<td>53,78</td>
<td>147,6</td>
<td>49,59</td>
<td>108,44</td>
</tr>
<tr>
<td>0,856</td>
<td>52,30</td>
<td>146,3</td>
<td>49,16</td>
<td>106,39</td>
</tr>
<tr>
<td>0,809</td>
<td>49,14</td>
<td>149,3</td>
<td>50,16</td>
<td>97,96</td>
</tr>
<tr>
<td>0,839</td>
<td>51,16</td>
<td>149,1</td>
<td>50,10</td>
<td>102,11</td>
</tr>
<tr>
<td>0,872</td>
<td>53,37</td>
<td>153,5</td>
<td>51,58</td>
<td>103,49</td>
</tr>
<tr>
<td>0,828</td>
<td>50,42</td>
<td>148,3</td>
<td>49,83</td>
<td>101,18</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>101,71</td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td>6,00</td>
</tr>
<tr>
<td>KV</td>
<td></td>
<td></td>
<td></td>
<td>5,90</td>
</tr>
</tbody>
</table>

### Hasil Uji Keseragaman Kandungan Tablet F2 (a) Replikasi II

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,734</td>
<td>44,10</td>
<td>148,1</td>
<td>49,76</td>
<td>88,62</td>
</tr>
<tr>
<td>0,926</td>
<td>57,00</td>
<td>145,2</td>
<td>48,79</td>
<td>116,84</td>
</tr>
<tr>
<td>0,763</td>
<td>46,05</td>
<td>145,6</td>
<td>48,92</td>
<td>94,12</td>
</tr>
<tr>
<td>0,856</td>
<td>52,30</td>
<td>144,4</td>
<td>48,52</td>
<td>107,79</td>
</tr>
<tr>
<td>0,868</td>
<td>53,11</td>
<td>146,6</td>
<td>49,26</td>
<td>107,81</td>
</tr>
<tr>
<td>0,828</td>
<td>50,42</td>
<td>151,4</td>
<td>50,87</td>
<td>99,11</td>
</tr>
<tr>
<td>0,773</td>
<td>46,72</td>
<td>150,6</td>
<td>50,60</td>
<td>92,33</td>
</tr>
<tr>
<td>0,735</td>
<td>44,17</td>
<td>150,8</td>
<td>50,67</td>
<td>87,16</td>
</tr>
<tr>
<td>0,725</td>
<td>43,49</td>
<td>145,9</td>
<td>49,02</td>
<td>88,72</td>
</tr>
<tr>
<td>0,729</td>
<td>43,76</td>
<td>150,3</td>
<td>50,50</td>
<td>86,66</td>
</tr>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>96,92</td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td>10,56</td>
</tr>
<tr>
<td>KV</td>
<td></td>
<td></td>
<td></td>
<td>10,90</td>
</tr>
</tbody>
</table>
### Hasil Uji Keseragaman Kandungan Tablet F3 (b) Replikasi II

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,769</td>
<td>46,45</td>
<td>144,3</td>
<td>48,48</td>
<td>95,80</td>
</tr>
<tr>
<td>0,786</td>
<td>47,59</td>
<td>155,2</td>
<td>52,15</td>
<td>91,27</td>
</tr>
<tr>
<td>0,781</td>
<td>47,26</td>
<td>153,6</td>
<td>51,61</td>
<td>91,57</td>
</tr>
<tr>
<td>0,754</td>
<td>45,44</td>
<td>146,3</td>
<td>49,16</td>
<td>92,44</td>
</tr>
<tr>
<td>0,772</td>
<td>46,65</td>
<td>145,2</td>
<td>48,79</td>
<td>95,62</td>
</tr>
<tr>
<td>0,756</td>
<td>45,58</td>
<td>150,9</td>
<td>50,70</td>
<td>89,89</td>
</tr>
<tr>
<td>0,738</td>
<td>44,37</td>
<td>149,1</td>
<td>50,10</td>
<td>88,56</td>
</tr>
<tr>
<td>0,745</td>
<td>44,84</td>
<td>146,2</td>
<td>49,12</td>
<td>91,28</td>
</tr>
<tr>
<td>0,769</td>
<td>46,45</td>
<td>152,2</td>
<td>51,14</td>
<td>90,83</td>
</tr>
<tr>
<td>0,784</td>
<td>47,46</td>
<td>148,2</td>
<td>49,80</td>
<td>95,31</td>
</tr>
</tbody>
</table>

| SD         | 92,26    |
| KV         | 2,52     |

### Hasil Uji Keseragaman Kandungan Tablet F4 (ab) Replikasi II

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,832</td>
<td>50,69</td>
<td>145,4</td>
<td>48,85</td>
<td>103,75</td>
</tr>
<tr>
<td>0,887</td>
<td>54,38</td>
<td>148</td>
<td>49,73</td>
<td>109,36</td>
</tr>
<tr>
<td>0,811</td>
<td>49,27</td>
<td>149,1</td>
<td>50,10</td>
<td>98,36</td>
</tr>
<tr>
<td>0,822</td>
<td>50,01</td>
<td>154,3</td>
<td>51,84</td>
<td>96,47</td>
</tr>
<tr>
<td>0,879</td>
<td>53,85</td>
<td>150,4</td>
<td>50,53</td>
<td>106,55</td>
</tr>
<tr>
<td>0,824</td>
<td>50,15</td>
<td>149,2</td>
<td>50,13</td>
<td>100,03</td>
</tr>
<tr>
<td>0,827</td>
<td>50,35</td>
<td>146</td>
<td>49,06</td>
<td>102,64</td>
</tr>
<tr>
<td>0,867</td>
<td>53,04</td>
<td>151,1</td>
<td>50,77</td>
<td>104,47</td>
</tr>
<tr>
<td>0,813</td>
<td>49,41</td>
<td>156,9</td>
<td>52,72</td>
<td>93,72</td>
</tr>
<tr>
<td>0,797</td>
<td>48,33</td>
<td>148,5</td>
<td>49,90</td>
<td>96,87</td>
</tr>
</tbody>
</table>

| SD         | 101,22   |
| KV         | 4,90     |
Hasil Uji Keseragaman Kandungan Tablet F1 (-1) Replikasi III

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,773</td>
<td>46,72</td>
<td>149,8</td>
<td>50,33</td>
<td>92,82</td>
</tr>
<tr>
<td>0,857</td>
<td>52,37</td>
<td>151,6</td>
<td>50,94</td>
<td>102,81</td>
</tr>
<tr>
<td>0,815</td>
<td>49,54</td>
<td>151,2</td>
<td>50,80</td>
<td>97,52</td>
</tr>
<tr>
<td>0,793</td>
<td>48,06</td>
<td>153,1</td>
<td>51,44</td>
<td>93,43</td>
</tr>
<tr>
<td>0,881</td>
<td>53,98</td>
<td>150,2</td>
<td>50,47</td>
<td>106,96</td>
</tr>
<tr>
<td>0,869</td>
<td>53,17</td>
<td>147,6</td>
<td>49,59</td>
<td>107,22</td>
</tr>
<tr>
<td>0,832</td>
<td>50,69</td>
<td>152,1</td>
<td>51,11</td>
<td>99,18</td>
</tr>
<tr>
<td>0,798</td>
<td>48,40</td>
<td>149,5</td>
<td>50,23</td>
<td>96,35</td>
</tr>
<tr>
<td>0,847</td>
<td>51,69</td>
<td>154,8</td>
<td>52,01</td>
<td>99,39</td>
</tr>
<tr>
<td>0,891</td>
<td>54,65</td>
<td>152,6</td>
<td>51,27</td>
<td>106,59</td>
</tr>
</tbody>
</table>

\[ \bar{X} \ 100,23 \]

SD 5,44
KV 5,43

Hasil Uji Keseragaman Kandungan Tablet F2 (a) Replikasi III

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,765</td>
<td>46,18</td>
<td>145,7</td>
<td>48,96</td>
<td>94,33</td>
</tr>
<tr>
<td>0,871</td>
<td>53,31</td>
<td>155,1</td>
<td>52,11</td>
<td>102,29</td>
</tr>
<tr>
<td>0,798</td>
<td>48,40</td>
<td>154,6</td>
<td>51,95</td>
<td>93,17</td>
</tr>
<tr>
<td>0,891</td>
<td>54,65</td>
<td>152,8</td>
<td>51,34</td>
<td>106,45</td>
</tr>
<tr>
<td>0,857</td>
<td>52,37</td>
<td>153,5</td>
<td>51,58</td>
<td>101,53</td>
</tr>
<tr>
<td>0,811</td>
<td>49,27</td>
<td>146,9</td>
<td>49,36</td>
<td>99,83</td>
</tr>
<tr>
<td>0,823</td>
<td>50,08</td>
<td>151,4</td>
<td>50,87</td>
<td>98,45</td>
</tr>
<tr>
<td>0,877</td>
<td>53,71</td>
<td>151,5</td>
<td>50,90</td>
<td>105,51</td>
</tr>
<tr>
<td>0,883</td>
<td>54,11</td>
<td>155,1</td>
<td>52,11</td>
<td>103,84</td>
</tr>
<tr>
<td>0,829</td>
<td>50,48</td>
<td>153,7</td>
<td>51,64</td>
<td>97,76</td>
</tr>
</tbody>
</table>

\[ \bar{X} \ 100,32 \]

SD 4,47
KV 4,45
### Hasil Uji Keseragaman Kandungan Tablet F3 (b) Replikasi III

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,875</td>
<td>53,58</td>
<td>152,1</td>
<td>51,11</td>
<td>104,83</td>
</tr>
<tr>
<td>0,891</td>
<td>54,65</td>
<td>154,4</td>
<td>51,88</td>
<td>105,35</td>
</tr>
<tr>
<td>0,826</td>
<td>50,28</td>
<td>153,9</td>
<td>51,71</td>
<td>97,24</td>
</tr>
<tr>
<td>0,832</td>
<td>50,69</td>
<td>154,8</td>
<td>52,01</td>
<td>97,45</td>
</tr>
<tr>
<td>0,874</td>
<td>53,51</td>
<td>155,1</td>
<td>52,11</td>
<td>102,68</td>
</tr>
<tr>
<td>0,837</td>
<td>51,02</td>
<td>153,8</td>
<td>51,68</td>
<td>98,73</td>
</tr>
<tr>
<td>0,834</td>
<td>50,82</td>
<td>150,5</td>
<td>50,57</td>
<td>100,50</td>
</tr>
<tr>
<td>0,872</td>
<td>53,37</td>
<td>154,7</td>
<td>51,98</td>
<td>102,68</td>
</tr>
<tr>
<td>0,817</td>
<td>49,68</td>
<td>151,3</td>
<td>50,84</td>
<td>97,72</td>
</tr>
<tr>
<td>0,799</td>
<td>48,47</td>
<td>148,3</td>
<td>49,83</td>
<td>97,27</td>
</tr>
</tbody>
</table>

\[ \bar{X} = 100,45 \]

\[ SD = 3,21 \]

\[ KV = 3,20 \]

### Hasil Uji Keseragaman Kandungan Tablet F4 (ab) Replikasi III

<table>
<thead>
<tr>
<th>Absorbansi</th>
<th>C sampel</th>
<th>W sampel</th>
<th>C teoritis</th>
<th>Kadar (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,772</td>
<td>46,65</td>
<td>148,5</td>
<td>49,90</td>
<td>93,50</td>
</tr>
<tr>
<td>0,869</td>
<td>53,17</td>
<td>145,7</td>
<td>48,96</td>
<td>108,62</td>
</tr>
<tr>
<td>0,798</td>
<td>48,40</td>
<td>154,2</td>
<td>51,81</td>
<td>93,42</td>
</tr>
<tr>
<td>0,789</td>
<td>47,80</td>
<td>152,3</td>
<td>51,17</td>
<td>93,40</td>
</tr>
<tr>
<td>0,874</td>
<td>53,51</td>
<td>153,2</td>
<td>51,48</td>
<td>103,95</td>
</tr>
<tr>
<td>0,847</td>
<td>51,69</td>
<td>153,7</td>
<td>51,64</td>
<td>100,10</td>
</tr>
<tr>
<td>0,816</td>
<td>49,61</td>
<td>152,1</td>
<td>51,11</td>
<td>97,07</td>
</tr>
<tr>
<td>0,843</td>
<td>51,43</td>
<td>152,4</td>
<td>51,21</td>
<td>100,43</td>
</tr>
<tr>
<td>0,877</td>
<td>53,71</td>
<td>152,7</td>
<td>51,31</td>
<td>104,69</td>
</tr>
<tr>
<td>0,836</td>
<td>50,95</td>
<td>152,7</td>
<td>51,31</td>
<td>99,31</td>
</tr>
</tbody>
</table>

\[ \bar{X} = 99,45 \]

\[ SD = 5,24 \]

\[ KV = 5,27 \]

### Contoh Perhitungan :

Absorbansi = 0,772 → \( y = 0,0104 + 0,0151X \)
Konsentrasi sampel = 46,65 ppm
Konsentrasi teoritis = 49,90 ppm

\[
\% \text{ Kadar} = \frac{\text{Konsentrasi sampel}}{\text{Konsentrasi teoritis}} \times 100\% = \frac{46,65}{49,90} \times 100\% = 93,50\%
\]
**LAMPIRAN D**

**HASIL UJI KESERAGAMAN UKURAN TABLET BUKAL PROPRANOLOL HCl**

Hasil Uji Keseragaman Ukuran Tablet Replikasi I

<table>
<thead>
<tr>
<th>No</th>
<th>FORMULA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FI(-1)</td>
</tr>
<tr>
<td>----</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td>Diameter (mm)</td>
</tr>
<tr>
<td>1</td>
<td>8,05</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>8,1</td>
</tr>
<tr>
<td>4</td>
<td>8,1</td>
</tr>
<tr>
<td>5</td>
<td>8,1</td>
</tr>
<tr>
<td>6</td>
<td>8,05</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>8,1</td>
</tr>
<tr>
<td>10</td>
<td>8,1</td>
</tr>
<tr>
<td>11</td>
<td>8,1</td>
</tr>
<tr>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>13</td>
<td>8,1</td>
</tr>
<tr>
<td>14</td>
<td>8,1</td>
</tr>
<tr>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>16</td>
<td>8,05</td>
</tr>
<tr>
<td>17</td>
<td>8,1</td>
</tr>
<tr>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>19</td>
<td>8,1</td>
</tr>
<tr>
<td>20</td>
<td>8,05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Diameter (mm)</th>
<th>Tebal (mm)</th>
<th>Diameter (mm)</th>
<th>Tebal (mm)</th>
<th>Diameter (mm)</th>
<th>Tebal (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>8,06</td>
<td>3,10</td>
<td>8,09</td>
<td>3,07</td>
<td>8,07</td>
<td>3,02</td>
</tr>
<tr>
<td>SD</td>
<td>0,04</td>
<td>0,12</td>
<td>0,04</td>
<td>0,15</td>
<td>0,03</td>
<td>0,18</td>
</tr>
<tr>
<td>SD</td>
<td>0,55</td>
<td>3,74</td>
<td>0,54</td>
<td>5,00</td>
<td>0,42</td>
<td>5,84</td>
</tr>
<tr>
<td>SD Rel (%)</td>
<td>0,24</td>
<td>7,47</td>
<td>0,24</td>
<td>7,47</td>
<td>0,24</td>
<td>7,47</td>
</tr>
</tbody>
</table>
Hasil Uji Keseragaman Ukuran Tablet Replikasi II

<table>
<thead>
<tr>
<th>No</th>
<th>F1(-1) Diameter (mm)</th>
<th>F1(-1) Tebal (mm)</th>
<th>F2(a) Diameter (mm)</th>
<th>F2(a) Tebal (mm)</th>
<th>F3(b) Diameter (mm)</th>
<th>F3(b) Tebal (mm)</th>
<th>F4(ab) Diameter (mm)</th>
<th>F4(ab) Tebal (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8,05</td>
<td>3,30</td>
<td>7,85</td>
<td>3,20</td>
<td>8,05</td>
<td>3,15</td>
<td>8,05</td>
<td>3,15</td>
</tr>
<tr>
<td>2</td>
<td>8,00</td>
<td>3,20</td>
<td>7,80</td>
<td>3,15</td>
<td>8,05</td>
<td>3,10</td>
<td>8,10</td>
<td>3,05</td>
</tr>
<tr>
<td>3</td>
<td>8,10</td>
<td>3,00</td>
<td>7,85</td>
<td>3,15</td>
<td>8,20</td>
<td>2,90</td>
<td>8,05</td>
<td>3,10</td>
</tr>
<tr>
<td>4</td>
<td>8,10</td>
<td>3,10</td>
<td>8,00</td>
<td>3,00</td>
<td>8,10</td>
<td>3,10</td>
<td>8,05</td>
<td>3,05</td>
</tr>
<tr>
<td>5</td>
<td>8,10</td>
<td>3,15</td>
<td>8,00</td>
<td>3,10</td>
<td>8,05</td>
<td>3,05</td>
<td>8,10</td>
<td>3,15</td>
</tr>
<tr>
<td>6</td>
<td>8,10</td>
<td>3,05</td>
<td>8,15</td>
<td>3,05</td>
<td>8,10</td>
<td>2,65</td>
<td>8,10</td>
<td>3,20</td>
</tr>
<tr>
<td>7</td>
<td>8,05</td>
<td>3,10</td>
<td>7,95</td>
<td>2,70</td>
<td>8,10</td>
<td>3,25</td>
<td>8,05</td>
<td>3,05</td>
</tr>
<tr>
<td>8</td>
<td>8,20</td>
<td>3,20</td>
<td>8,00</td>
<td>3,00</td>
<td>8,00</td>
<td>3,20</td>
<td>8,10</td>
<td>3,65</td>
</tr>
<tr>
<td>9</td>
<td>8,1</td>
<td>3,15</td>
<td>8,15</td>
<td>3,35</td>
<td>8,05</td>
<td>3,05</td>
<td>8,05</td>
<td>3,40</td>
</tr>
<tr>
<td>10</td>
<td>8,05</td>
<td>3,15</td>
<td>8,15</td>
<td>3,05</td>
<td>8,05</td>
<td>3,65</td>
<td>8,10</td>
<td>2,90</td>
</tr>
<tr>
<td>11</td>
<td>8,10</td>
<td>3,00</td>
<td>8,00</td>
<td>3,15</td>
<td>8,10</td>
<td>3,40</td>
<td>8,10</td>
<td>3,20</td>
</tr>
<tr>
<td>12</td>
<td>8,00</td>
<td>3,05</td>
<td>8,00</td>
<td>3,15</td>
<td>8,00</td>
<td>2,90</td>
<td>8,05</td>
<td>3,30</td>
</tr>
<tr>
<td>13</td>
<td>8,05</td>
<td>3,15</td>
<td>8,00</td>
<td>3,00</td>
<td>8,05</td>
<td>3,05</td>
<td>8,05</td>
<td>3,40</td>
</tr>
<tr>
<td>14</td>
<td>8,10</td>
<td>3,15</td>
<td>7,85</td>
<td>2,70</td>
<td>8,10</td>
<td>2,90</td>
<td>8,10</td>
<td>2,90</td>
</tr>
<tr>
<td>15</td>
<td>8,1</td>
<td>3,00</td>
<td>7,90</td>
<td>3,15</td>
<td>8,10</td>
<td>3,40</td>
<td>8,05</td>
<td>3,05</td>
</tr>
<tr>
<td>16</td>
<td>8,05</td>
<td>3,05</td>
<td>7,95</td>
<td>3,20</td>
<td>8,05</td>
<td>3,05</td>
<td>8,05</td>
<td>2,90</td>
</tr>
<tr>
<td>17</td>
<td>8,05</td>
<td>3,25</td>
<td>7,95</td>
<td>3,15</td>
<td>8,10</td>
<td>3,65</td>
<td>8,20</td>
<td>3,40</td>
</tr>
<tr>
<td>18</td>
<td>8,10</td>
<td>3,10</td>
<td>8,00</td>
<td>3,05</td>
<td>8,10</td>
<td>3,25</td>
<td>8,10</td>
<td>3,05</td>
</tr>
<tr>
<td>19</td>
<td>8,05</td>
<td>3,10</td>
<td>8,00</td>
<td>3,05</td>
<td>8,05</td>
<td>3,15</td>
<td>8,05</td>
<td>3,65</td>
</tr>
<tr>
<td>20</td>
<td>8,20</td>
<td>2,80</td>
<td>8,10</td>
<td>3,00</td>
<td>8,05</td>
<td>2,90</td>
<td>8,10</td>
<td>3,05</td>
</tr>
</tbody>
</table>

\[\bar{x}\] 8,08 3,09 7,98 3,07 8,07 3,14 8,08 3,19

SD 0,05 0,14 0,10 0,15 0,05 0,25 0,04 0,22

SDRel (%) 0,68 4,56 1,27 5,00 0,56 7,97 0,47 6,94
Hasil Uji Keseragaman Ukuran Tablet Replikasi III

<table>
<thead>
<tr>
<th>No</th>
<th>FORMULA</th>
<th>FI(-1) Diameter (mm)</th>
<th>FI(-1) Tebal (mm)</th>
<th>F2(a) Diameter (mm)</th>
<th>F2(a) Tebal (mm)</th>
<th>F3(b) Diameter (mm)</th>
<th>F3(b) Tebal (mm)</th>
<th>F4(ab) Diameter (mm)</th>
<th>F4(ab) Tebal (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>8,10</td>
<td>3,10</td>
<td>7,85</td>
<td>3,10</td>
<td>8,00</td>
<td>3,05</td>
<td>7,95</td>
<td>3,10</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>8,00</td>
<td>3,05</td>
<td>7,70</td>
<td>3,05</td>
<td>8,05</td>
<td>2,90</td>
<td>7,95</td>
<td>3,05</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>8,15</td>
<td>3,00</td>
<td>7,90</td>
<td>3,15</td>
<td>8,00</td>
<td>3,05</td>
<td>7,85</td>
<td>3,15</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>8,00</td>
<td>3,05</td>
<td>8,10</td>
<td>3,05</td>
<td>8,00</td>
<td>2,90</td>
<td>7,85</td>
<td>3,05</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>8,15</td>
<td>3,05</td>
<td>8,05</td>
<td>3,00</td>
<td>8,05</td>
<td>2,95</td>
<td>7,85</td>
<td>3,00</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>8,15</td>
<td>2,95</td>
<td>7,95</td>
<td>3,05</td>
<td>7,95</td>
<td>3,00</td>
<td>7,85</td>
<td>3,05</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>8,10</td>
<td>3,00</td>
<td>7,95</td>
<td>3,15</td>
<td>8,15</td>
<td>3,10</td>
<td>7,95</td>
<td>3,15</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>7,95</td>
<td>3,05</td>
<td>8,15</td>
<td>3,10</td>
<td>8,00</td>
<td>3,05</td>
<td>7,90</td>
<td>3,10</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>8,20</td>
<td>3,05</td>
<td>8,05</td>
<td>3,00</td>
<td>8,15</td>
<td>3,10</td>
<td>7,90</td>
<td>3,00</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>8,10</td>
<td>3,00</td>
<td>8,00</td>
<td>3,20</td>
<td>8,05</td>
<td>3,00</td>
<td>7,85</td>
<td>3,20</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>8,15</td>
<td>3,00</td>
<td>7,85</td>
<td>3,05</td>
<td>8,00</td>
<td>2,95</td>
<td>7,85</td>
<td>3,05</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>8,15</td>
<td>2,95</td>
<td>7,90</td>
<td>3,00</td>
<td>8,05</td>
<td>3,00</td>
<td>7,95</td>
<td>3,00</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>8,10</td>
<td>3,00</td>
<td>8,00</td>
<td>3,15</td>
<td>8,00</td>
<td>3,05</td>
<td>7,90</td>
<td>3,15</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>8,15</td>
<td>3,05</td>
<td>8,00</td>
<td>3,05</td>
<td>7,85</td>
<td>2,95</td>
<td>7,85</td>
<td>3,05</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>7,95</td>
<td>3,00</td>
<td>8,15</td>
<td>3,10</td>
<td>7,85</td>
<td>3,05</td>
<td>7,85</td>
<td>3,10</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>8,15</td>
<td>2,95</td>
<td>8,10</td>
<td>3,05</td>
<td>8,05</td>
<td>3,05</td>
<td>7,95</td>
<td>3,05</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>8,00</td>
<td>3,15</td>
<td>8,10</td>
<td>3,10</td>
<td>8,00</td>
<td>3,05</td>
<td>7,95</td>
<td>3,10</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>8,00</td>
<td>3,00</td>
<td>8,00</td>
<td>3,05</td>
<td>8,15</td>
<td>3,00</td>
<td>7,80</td>
<td>3,05</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>8,00</td>
<td>2,95</td>
<td>8,05</td>
<td>3,00</td>
<td>8,00</td>
<td>2,95</td>
<td>7,85</td>
<td>3,00</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>8,05</td>
<td>3,05</td>
<td>7,95</td>
<td>3,15</td>
<td>7,95</td>
<td>3,05</td>
<td>7,95</td>
<td>3,15</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>8,08</td>
<td>3,02</td>
<td>7,99</td>
<td>3,08</td>
<td>8,02</td>
<td>3,01</td>
<td>7,89</td>
<td>3,08</td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td>0,08</td>
<td>0,05</td>
<td>0,11</td>
<td>0,06</td>
<td>0,08</td>
<td>0,06</td>
<td>0,05</td>
<td>0,06</td>
</tr>
<tr>
<td>SD</td>
<td>Rel (%)</td>
<td>0,97</td>
<td>1,73</td>
<td>1,42</td>
<td>1,93</td>
<td>1,01</td>
<td>1,99</td>
<td>0,64</td>
<td>1,93</td>
</tr>
</tbody>
</table>
**LAMPIRAN E**

**HASIL UJI KEKERASAN TABLET BUKAL PROPRANOLOL HCl**

<table>
<thead>
<tr>
<th>No,</th>
<th>Kekerasan Tablet Bukal Propranolol HCl (kp)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1(-1)</td>
</tr>
<tr>
<td>1</td>
<td>4,8</td>
</tr>
<tr>
<td>2</td>
<td>5,3</td>
</tr>
<tr>
<td>3</td>
<td>4,2</td>
</tr>
<tr>
<td>4</td>
<td>5,6</td>
</tr>
<tr>
<td>5</td>
<td>4,1</td>
</tr>
<tr>
<td>6</td>
<td>5,6</td>
</tr>
<tr>
<td>7</td>
<td>4,1</td>
</tr>
<tr>
<td>8</td>
<td>6,8</td>
</tr>
<tr>
<td>9</td>
<td>4,3</td>
</tr>
<tr>
<td>10</td>
<td>6,0</td>
</tr>
</tbody>
</table>

\[ \bar{x} \pm SD \ 5,08 \pm 0,93 \ 4,94 \pm 0,78 \ 5,49 \pm 0,64 \ 4,41 \pm 0,30 \]

**Hasil Uji Kekerasan Tablet Replikasi II**

<table>
<thead>
<tr>
<th>No,</th>
<th>Kekerasan Tablet Propranolol HCl (kp)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1(-1)</td>
</tr>
<tr>
<td>1</td>
<td>5,0</td>
</tr>
<tr>
<td>2</td>
<td>5,3</td>
</tr>
<tr>
<td>3</td>
<td>4,8</td>
</tr>
<tr>
<td>4</td>
<td>4,1</td>
</tr>
<tr>
<td>5</td>
<td>4,6</td>
</tr>
<tr>
<td>6</td>
<td>6,2</td>
</tr>
<tr>
<td>7</td>
<td>4,8</td>
</tr>
<tr>
<td>8</td>
<td>5,6</td>
</tr>
<tr>
<td>9</td>
<td>6,1</td>
</tr>
<tr>
<td>10</td>
<td>4,2</td>
</tr>
</tbody>
</table>

\[ \bar{x} \pm SD \ 5,07 \pm 0,73 \ 5,08 \pm 0,71 \ 5,53 \pm 0,58 \ 4,77 \pm 0,33 \]
<table>
<thead>
<tr>
<th>No,</th>
<th>Kekerasan Tablet Propranolol Hcl (kp)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1(-1)</td>
</tr>
<tr>
<td>1</td>
<td>5,1</td>
</tr>
<tr>
<td>2</td>
<td>5,4</td>
</tr>
<tr>
<td>3</td>
<td>5,6</td>
</tr>
<tr>
<td>4</td>
<td>5,2</td>
</tr>
<tr>
<td>5</td>
<td>5,7</td>
</tr>
<tr>
<td>6</td>
<td>5,6</td>
</tr>
<tr>
<td>7</td>
<td>5,2</td>
</tr>
<tr>
<td>8</td>
<td>5,1</td>
</tr>
<tr>
<td>9</td>
<td>4,5</td>
</tr>
<tr>
<td>10</td>
<td>4,2</td>
</tr>
</tbody>
</table>

\[ \bar{x} \pm SD \quad 5,16 \pm 0,48 \quad 4,90 \pm 0,59 \quad 4,80 \pm 0,42 \quad 4,74 \pm 0,40 \]
LAMPIRAN F
HASIL UJI KERAPUHAN TABLET BUKAL
PROPRANOLOL HCl

<table>
<thead>
<tr>
<th>Formula</th>
<th>Replikasi</th>
<th>Berat awal (gram)</th>
<th>Berat akhir (gram)</th>
<th>Kerapuhan (%)</th>
<th>$\bar{x} \pm SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>1</td>
<td>2,85</td>
<td>2,83</td>
<td>0,70</td>
<td>0,71 + 0,01</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2,79</td>
<td>2,77</td>
<td>0,72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2,82</td>
<td>2,80</td>
<td>0,71</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>1</td>
<td>2,76</td>
<td>2,74</td>
<td>0,72</td>
<td>0,74 + 0,02</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2,66</td>
<td>2,64</td>
<td>0,75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2,71</td>
<td>2,69</td>
<td>0,74</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>1</td>
<td>2,79</td>
<td>2,77</td>
<td>0,65</td>
<td>0,71 + 0,05</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2,70</td>
<td>2,68</td>
<td>0,74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2,75</td>
<td>2,73</td>
<td>0,73</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>1</td>
<td>2,95</td>
<td>2,93</td>
<td>0,68</td>
<td>0,58 + 0,20</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2,76</td>
<td>2,74</td>
<td>0,72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2,85</td>
<td>2,84</td>
<td>0,35</td>
<td></td>
</tr>
</tbody>
</table>

Contoh perhitungan :
Formula 1 (-1) Replikasi I :

Berat awal $W_0 = 2,85$ (gram)
Berat akhir $W = 2,83$ (gram)

\[
\% \text{ Kerapuhan} = \left( \frac{W_0 - W}{W_0} \right) \times 100 \%
\]

$= \left( \frac{2,85 - 2,83}{2,85} \right) \times 100 \%
= 0,70 \%$
**LAMPIRAN G**

**HASIL UJI INDEKS PENGEMBANGAN TABLET BUKAL PROPRANOLOL HCl**

Hasil Uji Indeks Pengembangan Tablet Formula 1 (-1)

<table>
<thead>
<tr>
<th>t jam</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>( \overline{X} \pm SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W1 (mg)</td>
<td>W2 (mg)</td>
<td>IP (%)</td>
<td>W1 (mg)</td>
</tr>
<tr>
<td>0,5</td>
<td>146,2</td>
<td>201,9</td>
<td>38,10</td>
<td>140,4</td>
</tr>
<tr>
<td>1</td>
<td>140,7</td>
<td>244,3</td>
<td>73,63</td>
<td>140,7</td>
</tr>
<tr>
<td>2</td>
<td>148,9</td>
<td>263,5</td>
<td>76,96</td>
<td>148,7</td>
</tr>
<tr>
<td>3</td>
<td>145,4</td>
<td>266,0</td>
<td>82,94</td>
<td>144,1</td>
</tr>
<tr>
<td>4</td>
<td>141,1</td>
<td>258,5</td>
<td>83,20</td>
<td>140,4</td>
</tr>
<tr>
<td>5</td>
<td>146,6</td>
<td>269,5</td>
<td>83,83</td>
<td>146,5</td>
</tr>
<tr>
<td>6</td>
<td>150,5</td>
<td>276,8</td>
<td>83,92</td>
<td>144,2</td>
</tr>
</tbody>
</table>

Keterangan:  
W1 = berat awal sediaan;  
W2 = berat sediaan setelah mengembang  
SI = swelling index

Hasil Uji Indeks Pengembangan Tablet Formula 2 (a)

<table>
<thead>
<tr>
<th>t jam</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>( \overline{X} \pm SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W1 (mg)</td>
<td>W2 (mg)</td>
<td>IP (%)</td>
<td>W1 (mg)</td>
</tr>
<tr>
<td>0,5</td>
<td>149,8</td>
<td>231,8</td>
<td>54,74</td>
<td>163,5</td>
</tr>
<tr>
<td>1</td>
<td>140,6</td>
<td>230,2</td>
<td>63,73</td>
<td>140,9</td>
</tr>
<tr>
<td>2</td>
<td>144,2</td>
<td>251,3</td>
<td>74,27</td>
<td>141,0</td>
</tr>
<tr>
<td>3</td>
<td>141,3</td>
<td>247,7</td>
<td>75,30</td>
<td>143,6</td>
</tr>
<tr>
<td>4</td>
<td>146,8</td>
<td>263,1</td>
<td>79,22</td>
<td>154,6</td>
</tr>
<tr>
<td>5</td>
<td>152,6</td>
<td>275,6</td>
<td>80,60</td>
<td>151,0</td>
</tr>
<tr>
<td>6</td>
<td>147,8</td>
<td>269,3</td>
<td>82,21</td>
<td>140,5</td>
</tr>
</tbody>
</table>

94
### Hasil Uji Indeks Pengembangan Tablet Formula 3 (b)

<table>
<thead>
<tr>
<th>t (jam)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>X ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,5</td>
<td>149,9</td>
<td>197,7</td>
<td>31,89</td>
<td>158,4</td>
<td>210,3</td>
<td>32,77</td>
<td>157,2</td>
<td>210,1</td>
<td>33,65</td>
<td>32,77 ± 0,88</td>
</tr>
<tr>
<td>1</td>
<td>141,2</td>
<td>191,6</td>
<td>35,69</td>
<td>147,0</td>
<td>201,1</td>
<td>36,80</td>
<td>163,7</td>
<td>231,2</td>
<td>41,23</td>
<td>37,91 ± 2,93</td>
</tr>
<tr>
<td>2</td>
<td>142,1</td>
<td>210,2</td>
<td>47,92</td>
<td>160,3</td>
<td>240,6</td>
<td>50,09</td>
<td>152,5</td>
<td>232,4</td>
<td>52,39</td>
<td>50,14 ± 2,24</td>
</tr>
<tr>
<td>3</td>
<td>151,6</td>
<td>231,0</td>
<td>52,37</td>
<td>147,5</td>
<td>229,5</td>
<td>55,59</td>
<td>142,5</td>
<td>224,3</td>
<td>57,40</td>
<td>55,12 ± 2,55</td>
</tr>
<tr>
<td>4</td>
<td>143,1</td>
<td>223,1</td>
<td>55,90</td>
<td>142,4</td>
<td>231,0</td>
<td>62,22</td>
<td>146,3</td>
<td>242,1</td>
<td>65,48</td>
<td>61,20 ± 4,87</td>
</tr>
<tr>
<td>5</td>
<td>151,7</td>
<td>238,1</td>
<td>56,95</td>
<td>143,0</td>
<td>232,3</td>
<td>62,45</td>
<td>144,7</td>
<td>239,9</td>
<td>65,79</td>
<td>61,73 ± 4,46</td>
</tr>
<tr>
<td>6</td>
<td>149,6</td>
<td>249,5</td>
<td>66,78</td>
<td>154,6</td>
<td>253,7</td>
<td>64,10</td>
<td>147,0</td>
<td>247,8</td>
<td>68,57</td>
<td>66,48 ± 2,25</td>
</tr>
</tbody>
</table>

### Hasil Uji Indeks Pengembangan Tablet Formula 4 (ab)

<table>
<thead>
<tr>
<th>t (jam)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>W1 (mg)</th>
<th>W2 (mg)</th>
<th>IP (%)</th>
<th>X ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,5</td>
<td>148,5</td>
<td>213,8</td>
<td>43,97</td>
<td>145,9</td>
<td>199,6</td>
<td>36,81</td>
<td>158,5</td>
<td>235,8</td>
<td>48,77</td>
<td>43,18 ± 6,02</td>
</tr>
<tr>
<td>1</td>
<td>151,5</td>
<td>222,9</td>
<td>47,13</td>
<td>149,2</td>
<td>216,6</td>
<td>45,17</td>
<td>161,2</td>
<td>243,7</td>
<td>51,18</td>
<td>47,83 ± 3,06</td>
</tr>
<tr>
<td>2</td>
<td>154,5</td>
<td>231,8</td>
<td>50,03</td>
<td>146,4</td>
<td>217,5</td>
<td>48,57</td>
<td>147,3</td>
<td>224,9</td>
<td>52,68</td>
<td>50,43 ± 2,09</td>
</tr>
<tr>
<td>3</td>
<td>142,9</td>
<td>224</td>
<td>56,75</td>
<td>145,1</td>
<td>224,1</td>
<td>54,45</td>
<td>149,8</td>
<td>232,4</td>
<td>55,14</td>
<td>55,45 ± 1,18</td>
</tr>
<tr>
<td>4</td>
<td>147,7</td>
<td>238,9</td>
<td>61,75</td>
<td>151,2</td>
<td>247,1</td>
<td>63,43</td>
<td>147,0</td>
<td>230,7</td>
<td>56,94</td>
<td>60,70 ± 3,37</td>
</tr>
<tr>
<td>5</td>
<td>151,2</td>
<td>247,1</td>
<td>63,43</td>
<td>144,7</td>
<td>237,2</td>
<td>63,93</td>
<td>153,1</td>
<td>242,3</td>
<td>58,26</td>
<td>61,87 ± 3,14</td>
</tr>
<tr>
<td>6</td>
<td>144,5</td>
<td>236,7</td>
<td>63,81</td>
<td>143,5</td>
<td>236,7</td>
<td>64,95</td>
<td>163,5</td>
<td>262,1</td>
<td>60,31</td>
<td>63,02 ± 2,42</td>
</tr>
</tbody>
</table>
LAMPIRAN H
HASIL UJI LAMA MEREKAT TABLET BUKAL
PROPRANOLOL HCI

<table>
<thead>
<tr>
<th>Formula</th>
<th>Replikasi</th>
<th>Lama Perekatan (jam)</th>
<th>$\bar{x} \pm SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 (-1)</td>
<td>I</td>
<td>4</td>
<td>4 ± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>F2 (a)</td>
<td>I</td>
<td>5</td>
<td>5 ± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>F3 (b)</td>
<td>I</td>
<td>6</td>
<td>6 ± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>F4 (ab)</td>
<td>I</td>
<td>6</td>
<td>6 ± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>
### LAMPIRAN I

**HASIL UJI pH PERMUKAAN TABLET BUKAL PROPRANOLOL HCl**

<table>
<thead>
<tr>
<th>Formula</th>
<th>Replikasi</th>
<th>pH permukaan</th>
<th>$\bar{x} \pm SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1 (-1)</td>
<td>I</td>
<td>6,0</td>
<td>6,0± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>6,0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>6,0</td>
<td></td>
</tr>
<tr>
<td>F2 (a)</td>
<td>I</td>
<td>6,1</td>
<td>6,1± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>6,1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>6,1</td>
<td></td>
</tr>
<tr>
<td>F3 (b)</td>
<td>I</td>
<td>5,9</td>
<td>5,9± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>5,9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>5,9</td>
<td></td>
</tr>
<tr>
<td>F4 (ab)</td>
<td>I</td>
<td>6,3</td>
<td>6,3± 0</td>
</tr>
<tr>
<td></td>
<td>II</td>
<td>6,3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>III</td>
<td>6,3</td>
<td></td>
</tr>
</tbody>
</table>
**LAMPIRAN J**

**HASIL UJI F KURVA BAKU DALAM METANOL**

Replikasi I

<table>
<thead>
<tr>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>(x^2)</th>
<th>(y^2)</th>
<th>(xy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,450</td>
<td>0,509</td>
<td>647,703</td>
<td>0,259</td>
<td>12,954</td>
</tr>
<tr>
<td>38,175</td>
<td>0,750</td>
<td>1457,331</td>
<td>0,563</td>
<td>28,631</td>
</tr>
<tr>
<td>50,900</td>
<td>1,029</td>
<td>2590,810</td>
<td>1,059</td>
<td>52,376</td>
</tr>
<tr>
<td>63,625</td>
<td>1,198</td>
<td>4048,141</td>
<td>1,435</td>
<td>76,223</td>
</tr>
<tr>
<td>76,350</td>
<td>1,418</td>
<td>5829,323</td>
<td>2,011</td>
<td>108,26</td>
</tr>
</tbody>
</table>

\[= 14573,306 \quad 5,326 \quad 278,448\]

Replikasi II

<table>
<thead>
<tr>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>(x^2)</th>
<th>(y^2)</th>
<th>(xy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,1</td>
<td>0,416</td>
<td>630,010</td>
<td>0,173</td>
<td>10,442</td>
</tr>
<tr>
<td>37,65</td>
<td>0,524</td>
<td>1417,523</td>
<td>0,275</td>
<td>19,729</td>
</tr>
<tr>
<td>50,2</td>
<td>0,804</td>
<td>2520,040</td>
<td>0,646</td>
<td>40,361</td>
</tr>
<tr>
<td>62,75</td>
<td>0,953</td>
<td>3937,563</td>
<td>0,908</td>
<td>59,801</td>
</tr>
<tr>
<td>75,3</td>
<td>1,361</td>
<td>5670,090</td>
<td>1,852</td>
<td>102,483</td>
</tr>
</tbody>
</table>

\[= 14175,225 \quad 3,855 \quad 232,815\]

Replikasi III

<table>
<thead>
<tr>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>(x^2)</th>
<th>(y^2)</th>
<th>(xy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,45</td>
<td>0,457</td>
<td>647,703</td>
<td>0,209</td>
<td>11,631</td>
</tr>
<tr>
<td>38,175</td>
<td>0,628</td>
<td>1457,331</td>
<td>0,394</td>
<td>23,974</td>
</tr>
<tr>
<td>50,9</td>
<td>0,858</td>
<td>2590,810</td>
<td>0,736</td>
<td>43,672</td>
</tr>
<tr>
<td>63,63</td>
<td>1,031</td>
<td>4048,777</td>
<td>1,063</td>
<td>65,603</td>
</tr>
<tr>
<td>76,35</td>
<td>1,202</td>
<td>5829,323</td>
<td>1,445</td>
<td>91,773</td>
</tr>
</tbody>
</table>

\[= 14573,943 \quad 3,847 \quad 236,652\]
Contoh Perhitungan:

Misal: replikasi I

\[ S_{si} = Y_c - \frac{(X_{yc})^2}{X_c} \]
\[ = 5,326 - \frac{(278,448)^2}{14573,306} \]
\[ = 0,0062 \]

\[ S_{Sc} = \sum Y_c - \frac{(\sum X_{yc})^2}{\sum X_c} \]
\[ = 13,028 - \frac{(747,915)^2}{43322,474} \]
\[ = 0,1162 \]

\[ S_{Sp} = S_{Si I} + S_{Si II} + S_{Si III} \]
\[ = 5,307 + 3,838 + 3,831 \]
\[ = 0,0414 \]

\[ F_{hitung} = \frac{S_{Sc} - S_{Sp}/k-1}{S_{Sp}/12} \]
\[ = \frac{0,1162 - 0,0414/3-1}{0,1162/12} \]
\[ = 0,0374/0,0129 \]
\[ F_{hitung} = 2,8992 < F_{tabel 0,05 (2,9)} = 4,26 \]

Karena \( F_{hitung} < F_{tabel} \) maka tidak ada perbedaan yang bermakna antar persamaan regresi.
LAMPIRAN K
HASIL UJI AKURASI DAN PRESISI DALAM METANOL

<table>
<thead>
<tr>
<th>Replikasi</th>
<th>%</th>
<th>Abs</th>
<th>C (ppm)</th>
<th>C Teoritis (ppm)</th>
<th>% Perolehan kembali</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80</td>
<td>0,669</td>
<td>39,73</td>
<td>40,32</td>
<td>98,53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( \bar{x} = 99,11 )</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>0,679</td>
<td>40,40</td>
<td>40,57</td>
<td>99,58</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 0,53</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>0,675</td>
<td>40,13</td>
<td>40,45</td>
<td>99,22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,54</td>
</tr>
<tr>
<td>1</td>
<td>100</td>
<td>0,761</td>
<td>45,91</td>
<td>51,03</td>
<td>99,98</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( \bar{x} = 99,86 )</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>0,751</td>
<td>45,24</td>
<td>50,53</td>
<td>99,92</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 0,16</td>
</tr>
<tr>
<td>3</td>
<td>100</td>
<td>0,773</td>
<td>46,72</td>
<td>50,78</td>
<td>99,69</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,16</td>
</tr>
<tr>
<td>1</td>
<td>120</td>
<td>0,881</td>
<td>53,98</td>
<td>60,98</td>
<td>99,76</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>( \bar{x} = 99,44 )</td>
</tr>
<tr>
<td>2</td>
<td>120</td>
<td>0,892</td>
<td>54,72</td>
<td>60,61</td>
<td>99,94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 0,70</td>
</tr>
<tr>
<td>3</td>
<td>120</td>
<td>0,875</td>
<td>53,58</td>
<td>60,86</td>
<td>98,64</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,71</td>
</tr>
</tbody>
</table>

Contoh perhitungan:
Dari hasil serapan dimasukkan kedalam persamaan regresi linear untuk kurva baku yang terpilih, yaitu : y = 0,0149 x + 0,0780, dimana :

- y = Serapan
- x = Konsentrasi yang teramati

Kemudian hitung % perolehan kembali dengan rumus :

\[
\frac{C_{\text{Sample}}}{C_{\text{Teoritis}}} \times 100\%
\]

Misal : replikasi I pada 80% :
y = 0,719  
x = 43,09

\[
\% \text{perolehan kembali} = \left( \frac{C_{\text{Sample}}}{C_{\text{Teoritis}}} \right) \times 100\% = \left( \frac{39,73}{40,32} \right) \times 100\% = 98,53\% 
\]
LAMPIRAN L
HASIL UJI PENETAPAN KADAR PROPRANOLOL HCl
DALAN METANOL

<table>
<thead>
<tr>
<th>Formula</th>
<th>Replikasi</th>
<th>Absorbansi</th>
<th>Csampel</th>
<th>Cteoritis</th>
<th>Kadar</th>
<th>$X_{\text{rata2}}$</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0,778</td>
<td>47,06</td>
<td>50,40</td>
<td>93,36</td>
<td>95,19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0,789</td>
<td>47,80</td>
<td>50,67</td>
<td>94,33</td>
<td></td>
<td>1,86</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0,771</td>
<td>46,59</td>
<td>51,34</td>
<td>90,74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>0,819</td>
<td>49,81</td>
<td>51,07</td>
<td>97,53</td>
<td>95,98</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0,806</td>
<td>48,94</td>
<td>50,90</td>
<td>96,14</td>
<td></td>
<td>1,52</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0,828</td>
<td>50,42</td>
<td>50,84</td>
<td>99,17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0,774</td>
<td>46,79</td>
<td>50,94</td>
<td>91,85</td>
<td>95,17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0,785</td>
<td>47,53</td>
<td>50,40</td>
<td>94,30</td>
<td></td>
<td>1,55</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0,769</td>
<td>46,45</td>
<td>50,80</td>
<td>91,43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0,821</td>
<td>49,95</td>
<td>50,87</td>
<td>98,18</td>
<td>97,81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0,818</td>
<td>49,74</td>
<td>50,90</td>
<td>97,72</td>
<td></td>
<td>0,34</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0,814</td>
<td>49,48</td>
<td>50,74</td>
<td>97,52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contoh perhitungan:
Formula 1 (-1) Replikasi I
Csampel (ppm) = (serapan – a) / b
= (0,778 – 0,0780) / 0,0149
= 93,36

Nilai a dan b merupakan intersep dan slope dari persamaan regresi linear yang terpilih
Misal pada F1 (-1) Replikasi I
Cteoritis dari penimbangan dicari konsentrasi dalam ppm

\[
\% \text{kadar} = \frac{\text{Csampel}}{\text{Cteoritis}} \times 100\%\\
\times \frac{47,06}{50,40} \times 100\%\\
= 93,36 \%\]
## LAMPIRAN M

**HASIL UJI F KURVA BAKU DALAM DAPAR FOSFAT ISOTONIS pH 6,8**

<table>
<thead>
<tr>
<th>Replikasi I</th>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>( x^2 )</th>
<th>( y^2 )</th>
<th>( Xy )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,2</td>
<td>0,082</td>
<td>27,040</td>
<td>0,007</td>
<td>0,426</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>0,396</td>
<td>676,000</td>
<td>0,157</td>
<td>10,296</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>0,810</td>
<td>2704,000</td>
<td>0,656</td>
<td>42,120</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>1,220</td>
<td>6084,000</td>
<td>1,488</td>
<td>95,160</td>
<td></td>
</tr>
<tr>
<td>104</td>
<td>1,561</td>
<td>10816,000</td>
<td>2,437</td>
<td>162,344</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20307,040</td>
<td>4,745</td>
<td>310,346</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Replikasi II</th>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>( x^2 )</th>
<th>( y^2 )</th>
<th>( Xy )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,06</td>
<td>0,085</td>
<td>25,604</td>
<td>0,007</td>
<td>0,430</td>
<td></td>
</tr>
<tr>
<td>25,3</td>
<td>0,393</td>
<td>640,090</td>
<td>0,154</td>
<td>9,943</td>
<td></td>
</tr>
<tr>
<td>50,6</td>
<td>0,870</td>
<td>2560,360</td>
<td>0,757</td>
<td>44,022</td>
<td></td>
</tr>
<tr>
<td>75,9</td>
<td>1,248</td>
<td>5760,810</td>
<td>1,558</td>
<td>94,723</td>
<td></td>
</tr>
<tr>
<td>101,2</td>
<td>1,538</td>
<td>10241,440</td>
<td>2,365</td>
<td>155,646</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19228,304</td>
<td>4,842</td>
<td>304,764</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Replikasi III</th>
<th>Konsentrasi</th>
<th>Absorbansi</th>
<th>( x^2 )</th>
<th>( y^2 )</th>
<th>( Xy )</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,08</td>
<td>0,086</td>
<td>25,806</td>
<td>0,007</td>
<td>0,437</td>
<td></td>
</tr>
<tr>
<td>25,4</td>
<td>0,355</td>
<td>645,160</td>
<td>0,126</td>
<td>9,017</td>
<td></td>
</tr>
<tr>
<td>50,8</td>
<td>0,888</td>
<td>2580,640</td>
<td>0,789</td>
<td>45,110</td>
<td></td>
</tr>
<tr>
<td>76,2</td>
<td>1,212</td>
<td>5806,440</td>
<td>1,469</td>
<td>92,354</td>
<td></td>
</tr>
<tr>
<td>101,6</td>
<td>1,673</td>
<td>10322,560</td>
<td>2,799</td>
<td>169,977</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19380,606</td>
<td>5,190</td>
<td>316,895</td>
</tr>
</tbody>
</table>
Contoh Perhitungan:

Misal : replikasi I

\[ S_{si} = Yc - \frac{(X_{yc})^2}{Xc} \]
\[ = 4,745 - \frac{(310,346)^2}{20307,040} \]
\[ = 0,002 \]

\[ S_{Sc} = \sum Yc - \frac{\left( \sum XYc \right)^2}{\sum Xc} \]
\[ = 14,776 - \frac{(932,006)^2}{58915,950} \]
\[ = 0,032 \]

\[ S_{Sp} = S_{Si} I + S_{Si} II + S_{Si} III \]
\[ = 0,002 + 0,011 + 0,008 \]
\[ = 0,021 \]

\[ F_{hitung} = \frac{(S_{Sc} - S_{Sp}/k-1)}{(S_{Sp}/12)} \]
\[ = (0,032 - 0,021/3 - 1) / (0,021/12) \]
\[ = 2,414 \]

\[ F_{hitung} = 2,414 < F_{tabel 0,05 (2,9)} = 4,26 \]

Karena \( F_{hitung} < F_{tabel} \) maka tidak ada perbedaan yang bermakna antar persamaan regresi.
LAMPIRAN N

HASIL UJI AKURASI DAN PRESISI
DALAM DAPAR FOSFAT ISOTONIS pH 6,8

<table>
<thead>
<tr>
<th>Replikasi</th>
<th>Abs</th>
<th>C (ppm)</th>
<th>C Teoritis (ppm)</th>
<th>% Perolehan kembali</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0,166</td>
<td>10,27</td>
<td>10,12</td>
<td>101,49</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X = 100,80</td>
</tr>
<tr>
<td>2</td>
<td>0,165</td>
<td>10,20</td>
<td>10,24</td>
<td>99,66</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 1,00</td>
</tr>
<tr>
<td>3</td>
<td>0,169</td>
<td>10,47</td>
<td>10,34</td>
<td>101,25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,99</td>
</tr>
<tr>
<td>1</td>
<td>0,779</td>
<td>50,74</td>
<td>50,60</td>
<td>100,28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X = 99,86</td>
</tr>
<tr>
<td>2</td>
<td>0,785</td>
<td>51,14</td>
<td>51,20</td>
<td>99,88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 0,43</td>
</tr>
<tr>
<td>3</td>
<td>0,789</td>
<td>51,40</td>
<td>51,40</td>
<td>99,42</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,43</td>
</tr>
<tr>
<td>1</td>
<td>1,559</td>
<td>102,24</td>
<td>101,20</td>
<td>101,03</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X = 100,15</td>
</tr>
<tr>
<td>2</td>
<td>1,561</td>
<td>102,37</td>
<td>102,40</td>
<td>99,97</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SD = 0,80</td>
</tr>
<tr>
<td>3</td>
<td>1,568</td>
<td>102,83</td>
<td>102,83</td>
<td>99,45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>KV = 0,80</td>
</tr>
</tbody>
</table>

Contoh perhitungan:
Dari hasil serapan dimasukkan kedalam persamaan regresi linear untuk kurva baku yang terpilih, yaitu:
y = 0,0104 + 0,0151x
dimana:
y = Serapan
x = Konsentrasi yang teramati
Kemudian hitung % perolehan kembali dengan rumus:

\[
\% \text{ Perolehan kembali} = \left( \frac{C_{\text{sampel}}}{C_{\text{teoritis}}} \right) \times 100 \%
\]

Misal: replikasi I pada 10 ppm
y = 0,0104 + 0,0151x
0,166=0,0104 + 0,0151x
X=10,3046

% Perolehan kembali= \((C_{\text{sampel}}/C_{\text{teoritis}}) \times 100\% = (10,27/10,12) \times 100\% = 101,49 \%\)
## LAMPIRAN O

**HASIL UJI PELEPASAN SECARA IN-VITRO TABLET BUKAL PROPRANOLOL HCl**

Hasil Uji Pelepasan Tablet *Buccoadhesive* Formula I

<table>
<thead>
<tr>
<th>t (jam)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Qt rata-rata</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
<td>Qt (µg/cm²)</td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
</tr>
<tr>
<td><strong>0,25</strong></td>
<td>0,257</td>
<td>16,28</td>
<td>1953,48</td>
<td>0,259</td>
<td>16,41</td>
</tr>
<tr>
<td><strong>0,5</strong></td>
<td>0,301</td>
<td>19,18</td>
<td>2302,07</td>
<td>0,311</td>
<td>19,84</td>
</tr>
<tr>
<td><strong>0,75</strong></td>
<td>0,379</td>
<td>24,33</td>
<td>2920,04</td>
<td>0,389</td>
<td>24,99</td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>0,435</td>
<td>28,03</td>
<td>3363,71</td>
<td>0,442</td>
<td>28,49</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>0,479</td>
<td>30,94</td>
<td>3712,30</td>
<td>0,486</td>
<td>31,40</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>0,666</td>
<td>43,28</td>
<td>5193,83</td>
<td>0,673</td>
<td>43,74</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>0,791</td>
<td>51,53</td>
<td>6184,16</td>
<td>0,797</td>
<td>51,93</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>0,828</td>
<td>53,98</td>
<td>6477,30</td>
<td>0,832</td>
<td>54,24</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>0,936</td>
<td>61,11</td>
<td>7332,95</td>
<td>0,943</td>
<td>61,57</td>
</tr>
<tr>
<td>t (jam)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Qt rata-rata</td>
<td>SD</td>
</tr>
<tr>
<td>--------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
<td>Qt (µg/cm²)</td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
</tr>
<tr>
<td>0,25</td>
<td>0,188</td>
<td>11,72</td>
<td>1406,82</td>
<td>0,197</td>
<td>12,32</td>
</tr>
<tr>
<td>0,5</td>
<td>0,24</td>
<td>15,16</td>
<td>1818,79</td>
<td>0,245</td>
<td>15,49</td>
</tr>
<tr>
<td>0,75</td>
<td>0,266</td>
<td>16,87</td>
<td>2024,78</td>
<td>0,271</td>
<td>17,20</td>
</tr>
<tr>
<td>1</td>
<td>0,373</td>
<td>23,94</td>
<td>2872,50</td>
<td>0,379</td>
<td>24,33</td>
</tr>
<tr>
<td>2</td>
<td>0,676</td>
<td>43,94</td>
<td>5273,06</td>
<td>0,683</td>
<td>44,40</td>
</tr>
<tr>
<td>3</td>
<td>0,939</td>
<td>61,31</td>
<td>7356,71</td>
<td>0,943</td>
<td>61,57</td>
</tr>
<tr>
<td>4</td>
<td>1,213</td>
<td>79,40</td>
<td>9527,51</td>
<td>1,215</td>
<td>79,53</td>
</tr>
<tr>
<td>5</td>
<td>1,419</td>
<td>93,00</td>
<td>11159,58</td>
<td>1,422</td>
<td>93,19</td>
</tr>
<tr>
<td>6</td>
<td>1,441</td>
<td>94,45</td>
<td>11333,88</td>
<td>1,448</td>
<td>94,91</td>
</tr>
<tr>
<td>t (jam)</td>
<td>Replikasi</td>
<td>Qt rata-rata</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>-----------</td>
<td>--------------</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
<td>Qt (µg/cm²)</td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
</tr>
<tr>
<td>0,25</td>
<td>0,239</td>
<td>15,09</td>
<td>1810,87</td>
<td>0,243</td>
<td>15,35</td>
</tr>
<tr>
<td>0,5</td>
<td>0,329</td>
<td>21,03</td>
<td>2523,91</td>
<td>0,338</td>
<td>21,63</td>
</tr>
<tr>
<td>0,75</td>
<td>0,347</td>
<td>22,22</td>
<td>2666,52</td>
<td>0,356</td>
<td>22,82</td>
</tr>
<tr>
<td>1</td>
<td>0,369</td>
<td>23,67</td>
<td>2840,81</td>
<td>0,375</td>
<td>24,07</td>
</tr>
<tr>
<td>2</td>
<td>0,519</td>
<td>33,58</td>
<td>4029,21</td>
<td>0,527</td>
<td>34,10</td>
</tr>
<tr>
<td>3</td>
<td>0,569</td>
<td>36,88</td>
<td>4425,34</td>
<td>0,573</td>
<td>37,14</td>
</tr>
<tr>
<td>4</td>
<td>0,663</td>
<td>43,08</td>
<td>5170,07</td>
<td>0,669</td>
<td>43,48</td>
</tr>
<tr>
<td>5</td>
<td>0,713</td>
<td>46,38</td>
<td>5566,20</td>
<td>0,702</td>
<td>45,66</td>
</tr>
<tr>
<td>6</td>
<td>0,853</td>
<td>55,63</td>
<td>6675,37</td>
<td>0,846</td>
<td>55,17</td>
</tr>
</tbody>
</table>

Hasil Uji Pelepasan Tablet Bukal Formula III
## Hasil Uji Pelepasan Tablet Bukal Formula IV

<table>
<thead>
<tr>
<th>t (jam)</th>
<th>1</th>
<th></th>
<th>2</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
<td>Qt (µg/cm²)</td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
<td>Qt (µg/cm²)</td>
<td>Abs</td>
<td>Cn’ (ppm)</td>
</tr>
<tr>
<td><strong>0,25</strong></td>
<td>0,177</td>
<td>11,00</td>
<td>1319,67</td>
<td>0,182</td>
<td>11,33</td>
<td>1359,28</td>
<td>0,178</td>
<td>11,06</td>
</tr>
<tr>
<td><strong>0,5</strong></td>
<td>0,215</td>
<td>13,51</td>
<td>1620,73</td>
<td>0,221</td>
<td>13,90</td>
<td>1668,26</td>
<td>0,219</td>
<td>13,77</td>
</tr>
<tr>
<td><strong>0,75</strong></td>
<td>0,234</td>
<td>14,76</td>
<td>1771,26</td>
<td>0,239</td>
<td>15,09</td>
<td>1810,87</td>
<td>0,229</td>
<td>14,43</td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>0,25</td>
<td>15,82</td>
<td>1898,02</td>
<td>0,258</td>
<td>16,35</td>
<td>1961,40</td>
<td>0,251</td>
<td>15,88</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>0,393</td>
<td>25,26</td>
<td>3030,96</td>
<td>0,392</td>
<td>25,19</td>
<td>3023,03</td>
<td>0,387</td>
<td>24,86</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>0,542</td>
<td>35,10</td>
<td>4211,43</td>
<td>0,543</td>
<td>35,16</td>
<td>4219,35</td>
<td>0,551</td>
<td>35,69</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>0,659</td>
<td>42,82</td>
<td>5138,38</td>
<td>0,654</td>
<td>42,49</td>
<td>5098,76</td>
<td>0,653</td>
<td>42,42</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>0,822</td>
<td>53,58</td>
<td>6429,77</td>
<td>0,831</td>
<td>54,18</td>
<td>6501,07</td>
<td>0,824</td>
<td>53,71</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>0,941</td>
<td>61,44</td>
<td>7372,56</td>
<td>0,951</td>
<td>62,10</td>
<td>7451,79</td>
<td>0,943</td>
<td>61,57</td>
</tr>
</tbody>
</table>
LAMPIRAN P

ANALISA DESAIN FAKTORIAL INDEKS PENGEMBANGAN

Response 1 Indeks Pengembangan
ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Value</th>
<th>p-value</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1208,22</td>
<td>3</td>
<td>402,74</td>
<td>14,71</td>
<td>0,0013</td>
<td>Significant</td>
</tr>
<tr>
<td>A-karbopol 940</td>
<td>1002,25</td>
<td>1</td>
<td>1002,25</td>
<td>36,61</td>
<td>0,0003</td>
<td></td>
</tr>
<tr>
<td>B-CMC-Na</td>
<td>44,84</td>
<td>1</td>
<td>44,84</td>
<td>1,64</td>
<td>0,2366</td>
<td></td>
</tr>
<tr>
<td>AB</td>
<td>161,14</td>
<td>1</td>
<td>161,14</td>
<td>5,89</td>
<td>0,0415</td>
<td></td>
</tr>
<tr>
<td>Pure Error</td>
<td>219,03</td>
<td>8</td>
<td>27,38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cor Total</td>
<td>1427,25</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Model F-value of 14,71 implies the model is significant, There is only a 0,13% chance that a "Model F-Value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant, In this case A, AB are significant model terms,
Values greater than 0,1000 indicate the model terms are not significant, If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model

Final Equation in Terms of Coded Factors:

indeks pengembangan =
+73,89
-9,14 * Karbopol 940
+1,93 * CMC – Na
-3,66 * Karbopol 940 CMC – Na
LAMPIRAN Q
ANALISA DESAIN FAKTORIAL pH PERMUKAAN

Response 2 pH Permukaan
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Value</th>
<th>p-value</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>0,26</td>
<td>3</td>
<td>0,087</td>
<td>6,366E+007</td>
<td>&lt;</td>
<td>0,0001</td>
</tr>
<tr>
<td>A-Karbopol 940</td>
<td>7,500E-003</td>
<td>1</td>
<td>7,500E-003</td>
<td>6,366E+007</td>
<td>&lt;</td>
<td>0,0001</td>
</tr>
<tr>
<td>B-CMC-Na</td>
<td>0,19</td>
<td>1</td>
<td>0,19</td>
<td>6,366E+007</td>
<td>&lt;</td>
<td>0,0001</td>
</tr>
<tr>
<td>AB</td>
<td>0,068</td>
<td>1</td>
<td>0,068</td>
<td>6,366E+007</td>
<td>&lt;</td>
<td>0,0001</td>
</tr>
<tr>
<td>Pure Error</td>
<td>0,000</td>
<td>8</td>
<td>0,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0,26</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Model F-value of 63660000,00 implies the model is significant, there is only a 0,01% chance that a "Model F-Value" this large could occur due to noise.

Values of "Prob > F" less than 0,0500 indicate model terms are significant, in this case A, B, AB are significant model terms, values greater than 0,1000 indicate the model terms are not significant, if there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model.

Final Equation in Terms of Coded Factors:
pH permukaan = +6,07 +0,025 * Karbopol 940 +0,12 * CMC – Na +0,075 * Karbopol 940 * CMC – Na
LAMPIRAN R

ANALISA DESAIN FAKTORIAL LAMA PEREKATAN

Response 3 Lama Perekatan
ANOVA for selected factorial model

<table>
<thead>
<tr>
<th>Analysis of variance table [Partial sum of squares – Type III]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>A-Karbopol</td>
</tr>
<tr>
<td>B-CMC-Na</td>
</tr>
<tr>
<td>AB</td>
</tr>
<tr>
<td>Pure Error</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The Model F-value of 63660000,00 implies the model is significant, There is only a 0,01% chance that a "Model F-Value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant, In this case A, B, AB are significant model terms,
Values greater than 0,1000 indicate the model terms are not significant, If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Final Equation in Terms of Coded Factors:

daya mukoadhesive = +5,25 +0,25 * Karbopol 940 +0,75 * CMC – Na -0,25 * Karbopol 940 * CMC – Na
LAMPIRAN S
ANALISA DESAIN FAKTORIAL PELEPASAN IN-VITRO

Response 4 Pelepasan In-vitro
ANOVA for selected factorial model
Analysis of variance table [Partial sum of squares - Type III]

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Value</th>
<th>p-value</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2,413E+006</td>
<td>3</td>
<td>8,042E+005</td>
<td>15805,02</td>
<td>&lt;</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>A- Karbopol 940</td>
<td>7,597E+005</td>
<td>1</td>
<td>7,597E+005</td>
<td>14931,04</td>
<td>&lt;</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>B- CMC- Na</td>
<td>1,296E+006</td>
<td>1</td>
<td>1,296E+006</td>
<td>25475,37</td>
<td>&lt;</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>AB</td>
<td>3,566E+005</td>
<td>1</td>
<td>3,566E+005</td>
<td>7008,66</td>
<td>&lt;</td>
<td>&lt;0,0001</td>
</tr>
<tr>
<td>Pure Error</td>
<td>407,06</td>
<td>8</td>
<td>50,88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cor Total</td>
<td>2,413E+006</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Model F-value of 15805,02 implies the model is significant,
There is only a 0,01% chance that a "Model F-Value" this large could occur due to noise,
Values of "Prob > F" less than 0,0500 indicate model terms are significant,
In this case A, B, AB are significant model terms,
Values greater than 0,1000 indicate the model terms are not significant,
If there are many insignificant model terms (not counting those required to support hierarchy),
model reduction may improve your model,

Final Equation in Terms of Coded Factors:

\[ \text{uji pelepasan} = +1163,61 -251,62 +328,66 -172,39 \]
\[ +1163,61 \text{ * Karbopol 940} -251,62 \text{ * CMC – Na} +328,66 \text{ * Karbopol 940 *CMC – Na} \]
LAMPIRAN T
FORMULA OPTIMUM BERDASARKAN
METODE DESIGN EXPERT®

<table>
<thead>
<tr>
<th>Solution Number</th>
<th>Karbopol</th>
<th>CMC-Na</th>
<th>Indoeks Pengembanga</th>
<th>Lama Perekata</th>
<th>pH Permukaan</th>
<th>Pelepasan In-Vitro</th>
<th>Desirability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>63,0199</td>
<td>6</td>
<td>6,3</td>
<td>1068,27</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>-1</td>
<td>66,4835</td>
<td>5</td>
<td>5,9</td>
<td>755,717</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>-1</td>
<td>1</td>
<td>88,6269</td>
<td>6</td>
<td>6,1</td>
<td>1916,28</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>-1</td>
<td>-1</td>
<td>77,4324</td>
<td>4</td>
<td>6</td>
<td>914,17</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>0,06</td>
<td>-0,09</td>
<td>73,1744</td>
<td>5,20151</td>
<td>6,06525</td>
<td>1120,26</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0,09</td>
<td>0,87</td>
<td>74,4471</td>
<td>5,90402</td>
<td>6,1917</td>
<td>1412,38</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>-0,26</td>
<td>0,18</td>
<td>76,7781</td>
<td>5,32893</td>
<td>6,08713</td>
<td>1295,05</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>-0,77</td>
<td>0,33</td>
<td>82,5001</td>
<td>5,36455</td>
<td>6,07758</td>
<td>1508,49</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>0,93</td>
<td>0,17</td>
<td>65,1484</td>
<td>5,56818</td>
<td>6,1305</td>
<td>957,522</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>-0,63</td>
<td>-0,7</td>
<td>76,647</td>
<td>4,4582</td>
<td>6,00463</td>
<td>1015,05</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>0,19</td>
<td>-0,68</td>
<td>71,2991</td>
<td>4,81909</td>
<td>5,98472</td>
<td>913,73</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>0,87</td>
<td>0,21</td>
<td>65,7214</td>
<td>5,57865</td>
<td>6,1366</td>
<td>983,637</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>-0,11</td>
<td>0,74</td>
<td>76,6203</td>
<td>5,79437</td>
<td>6,15809</td>
<td>1447,19</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>0,82</td>
<td>-0,67</td>
<td>67,093</td>
<td>5,09247</td>
<td>5,97096</td>
<td>831,883</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>0,96</td>
<td>-0,25</td>
<td>65,5381</td>
<td>5,36311</td>
<td>6,0504</td>
<td>882,585</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>0,8</td>
<td>0,35</td>
<td>66,2004</td>
<td>5,64095</td>
<td>6,15921</td>
<td>1027,37</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>0,6</td>
<td>0,67</td>
<td>68,2599</td>
<td>5,80049</td>
<td>6,20334</td>
<td>1164,01</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>-0,64</td>
<td>0,97</td>
<td>83,944</td>
<td>5,97573</td>
<td>6,13364</td>
<td>1753,27</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>19</td>
<td>-0.33</td>
<td>-0.16</td>
<td>76.3626</td>
<td>5.03115</td>
<td>6.05026</td>
<td>1182.4</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>0.22</td>
<td>0.74</td>
<td>72.6642</td>
<td>5.82054</td>
<td>6.18575</td>
<td>1322.17</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0.2</td>
<td>-0.03</td>
<td>72.0255</td>
<td>5.27678</td>
<td>6.07536</td>
<td>1103.61</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>0.88</td>
<td>-0.36</td>
<td>66.2888</td>
<td>5.28221</td>
<td>6.02902</td>
<td>878.732</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>-0.73</td>
<td>0.87</td>
<td>84.5654</td>
<td>5.87414</td>
<td>6.1174</td>
<td>1741.03</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>-0.91</td>
<td>0.51</td>
<td>84.8806</td>
<td>5.51796</td>
<td>6.081</td>
<td>1638.8</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>-0.39</td>
<td>-0.65</td>
<td>75.2486</td>
<td>4.59849</td>
<td>6.00259</td>
<td>1002.6</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>0.78</td>
<td>0.22</td>
<td>66.5475</td>
<td>5.56652</td>
<td>6.13465</td>
<td>1009.42</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>-0.72</td>
<td>0.86</td>
<td>84.3423</td>
<td>5.87012</td>
<td>6.11851</td>
<td>1732.27</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>0.33</td>
<td>-0.49</td>
<td>70.5171</td>
<td>5.00421</td>
<td>6.00958</td>
<td>946.83</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0.15</td>
<td>0.37</td>
<td>73.0281</td>
<td>5.55227</td>
<td>6.12939</td>
<td>1238.19</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>0.39</td>
<td>-0.64</td>
<td>70.0222</td>
<td>4.92555</td>
<td>5.98537</td>
<td>897.339</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>-0.04</td>
<td>-0.69</td>
<td>72.8193</td>
<td>4.71323</td>
<td>5.98949</td>
<td>941.264</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>-0.82</td>
<td>-0.98</td>
<td>76.5217</td>
<td>4.11221</td>
<td>5.99207</td>
<td>909.224</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>-0.62</td>
<td>-0.34</td>
<td>78.1522</td>
<td>4.78288</td>
<td>6.03257</td>
<td>1171.1</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>-0.32</td>
<td>-0.45</td>
<td>75.4553</td>
<td>4.79533</td>
<td>6.02166</td>
<td>1072.48</td>
<td></td>
</tr>
</tbody>
</table>
LAMPIRAN U
SERTIFIKAT ANALISIS BAHAN CMC-Na

DAI-ICHI KOGYO SEIYAKU CO., LTD.

To whom it may concern:

Certificate of Analysis

Commodity: CELLOGEN F-3H / CMC Na

Order No.: 21E20382

<table>
<thead>
<tr>
<th>Lot No.</th>
<th>Quantity (kg)</th>
<th>Moisture (%)</th>
<th>NaCl (%)</th>
<th>D.S.</th>
<th>Viscosity (mPa.s) (1% aq. Soln.)</th>
<th>pH (1% aq. Soln.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>553468</td>
<td>340</td>
<td>5.5</td>
<td>0.66</td>
<td>0.58</td>
<td>1220</td>
<td>6.7</td>
</tr>
<tr>
<td>553469</td>
<td>160</td>
<td>5.5</td>
<td>0.59</td>
<td>0.58</td>
<td>1240</td>
<td>6.7</td>
</tr>
</tbody>
</table>

We hereby certify that the analysis outcome of above meets the standard specification for export at our laboratory.

DAI-ICHI KOGYOSEIYAKU CO., LTD.

115
LAMPIRAN V

SERTIFIKAT ANALISIS BAHAN KARBOPOL 940
**LAMPIRAN W**

**SERTIFIKAT ANALISIS BAHAN MANITOL**

---

**Certificate of Analysis/Conformity**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>Result</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total aerobic microorganisms count Ph.Eur. /g</td>
<td></td>
<td>9</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total combined yeasts/moulds count Ph.Eur.</td>
<td></td>
<td>absent</td>
<td>absent</td>
<td>absent</td>
</tr>
<tr>
<td>E. coli Ph.Eur. /g</td>
<td></td>
<td>absent</td>
<td>absent</td>
<td>absent</td>
</tr>
<tr>
<td>Salmonella Ph.Eur. /10g</td>
<td></td>
<td>pass test</td>
<td>pass test</td>
<td>pass test</td>
</tr>
<tr>
<td>Identification C. Ph.Eur. IR</td>
<td></td>
<td>pass test</td>
<td>pass test</td>
<td>pass test</td>
</tr>
<tr>
<td>Appearance of solution Ph.Eur.</td>
<td></td>
<td>pass test</td>
<td>pass test</td>
<td>pass test</td>
</tr>
<tr>
<td>Conductivity Ph.Eur.</td>
<td>µS/cm</td>
<td>0.9</td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td>Red. sugars Ph.Eur.</td>
<td>%</td>
<td>&lt;0.20</td>
<td></td>
<td>0.20</td>
</tr>
<tr>
<td>Related substances Ph.Eur. on d.b.</td>
<td>%</td>
<td>0.05</td>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td>Related substances, disregard limit Ph.E</td>
<td>%</td>
<td>0.04</td>
<td></td>
<td>0.20</td>
</tr>
<tr>
<td>Related substances, total Ph.Eur. on d.b</td>
<td>%</td>
<td>&lt;0.05</td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td>Related substances, unspecified Ph.Eur.</td>
<td>%</td>
<td>0.13</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>Impurity, isomalt Ph.Eur. on d.b.</td>
<td>%</td>
<td>&lt;0.05</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>Impurity, maltitol Ph.Eur. on d.b.</td>
<td>%</td>
<td>0.81</td>
<td></td>
<td>2.00</td>
</tr>
<tr>
<td>Impurity, sorbitol Ph.Eur. on d.b.</td>
<td>%</td>
<td>0.13</td>
<td></td>
<td>0.50</td>
</tr>
<tr>
<td>Water Ph.Eur.</td>
<td>%</td>
<td>98.1</td>
<td>98.0</td>
<td>102.0</td>
</tr>
<tr>
<td>Mannitol, assay Ph.Eur. on d.b.</td>
<td>%</td>
<td>3</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Total aerobic microorganisms count Ph.Eur. /g</td>
<td></td>
<td>absent</td>
<td>absent</td>
<td>absent</td>
</tr>
<tr>
<td>Total combined yeasts/moulds count Ph.Eur.</td>
<td></td>
<td>absent</td>
<td>absent</td>
<td>absent</td>
</tr>
<tr>
<td>E. coli Ph.Eur. /g</td>
<td></td>
<td>&lt;0.5</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Salmonella Ph.Eur. /10g</td>
<td>ppm</td>
<td>&lt;1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

We hereby confirm that this batch has been tested to the quality requirements. Test results are within the agreed limits.
LAMPIRAN X
SERTIFIKAT ANALISIS BAHAN LAKTOSA

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Method</th>
<th>Specifications</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIDITY</td>
<td>0.1N NAOH, ML.</td>
<td>0.0 - 0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>ACIDITY</td>
<td>VISUAL EXAM</td>
<td>COLORLESS</td>
<td>COLORLESS</td>
</tr>
<tr>
<td>APPEARANCE OF SOLN</td>
<td>EP REQUIREMENTS</td>
<td>PASS</td>
<td>PASS</td>
</tr>
</tbody>
</table>

Customer PO: 2011/ PO/380

Page 1 of 2
<table>
<thead>
<tr>
<th>N</th>
<th>Tabel Signif 5%</th>
<th>Tabel Signif 1%</th>
<th>N</th>
<th>Tabel Signif 5%</th>
<th>Tabel Signif 1%</th>
<th>N</th>
<th>Tabel Signif 5%</th>
<th>Tabel Signif 1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.997</td>
<td>0.999</td>
<td>27</td>
<td>0.361</td>
<td>0.467</td>
<td>55</td>
<td>0.265</td>
<td>0.345</td>
</tr>
<tr>
<td>4</td>
<td>0.950</td>
<td>0.990</td>
<td>28</td>
<td>0.374</td>
<td>0.478</td>
<td>60</td>
<td>0.254</td>
<td>0.330</td>
</tr>
<tr>
<td>5</td>
<td>0.878</td>
<td>0.950</td>
<td>29</td>
<td>0.387</td>
<td>0.470</td>
<td>65</td>
<td>0.244</td>
<td>0.317</td>
</tr>
<tr>
<td>6</td>
<td>0.811</td>
<td>0.917</td>
<td>30</td>
<td>0.361</td>
<td>0.463</td>
<td>70</td>
<td>0.235</td>
<td>0.306</td>
</tr>
<tr>
<td>7</td>
<td>0.754</td>
<td>0.874</td>
<td>31</td>
<td>0.355</td>
<td>0.456</td>
<td>75</td>
<td>0.227</td>
<td>0.296</td>
</tr>
<tr>
<td>8</td>
<td>0.707</td>
<td>0.834</td>
<td>32</td>
<td>0.349</td>
<td>0.449</td>
<td>80</td>
<td>0.220</td>
<td>0.280</td>
</tr>
<tr>
<td>9</td>
<td>0.668</td>
<td>0.798</td>
<td>33</td>
<td>0.344</td>
<td>0.442</td>
<td>85</td>
<td>0.213</td>
<td>0.275</td>
</tr>
<tr>
<td>10</td>
<td>0.632</td>
<td>0.765</td>
<td>34</td>
<td>0.339</td>
<td>0.436</td>
<td>90</td>
<td>0.207</td>
<td>0.270</td>
</tr>
<tr>
<td>11</td>
<td>0.602</td>
<td>0.735</td>
<td>35</td>
<td>0.334</td>
<td>0.430</td>
<td>95</td>
<td>0.202</td>
<td>0.263</td>
</tr>
<tr>
<td>12</td>
<td>0.576</td>
<td>0.708</td>
<td>36</td>
<td>0.329</td>
<td>0.424</td>
<td>100</td>
<td>0.195</td>
<td>0.256</td>
</tr>
<tr>
<td>13</td>
<td>0.553</td>
<td>0.684</td>
<td>37</td>
<td>0.325</td>
<td>0.418</td>
<td>125</td>
<td>0.176</td>
<td>0.230</td>
</tr>
<tr>
<td>14</td>
<td>0.532</td>
<td>0.661</td>
<td>38</td>
<td>0.320</td>
<td>0.413</td>
<td>150</td>
<td>0.159</td>
<td>0.210</td>
</tr>
<tr>
<td>15</td>
<td>0.514</td>
<td>0.641</td>
<td>39</td>
<td>0.316</td>
<td>0.408</td>
<td>175</td>
<td>0.148</td>
<td>0.194</td>
</tr>
<tr>
<td>16</td>
<td>0.497</td>
<td>0.623</td>
<td>40</td>
<td>0.312</td>
<td>0.403</td>
<td>200</td>
<td>0.138</td>
<td>0.181</td>
</tr>
<tr>
<td>17</td>
<td>0.482</td>
<td>0.606</td>
<td>41</td>
<td>0.306</td>
<td>0.398</td>
<td>300</td>
<td>0.113</td>
<td>0.148</td>
</tr>
<tr>
<td>18</td>
<td>0.488</td>
<td>0.590</td>
<td>42</td>
<td>0.304</td>
<td>0.393</td>
<td>400</td>
<td>0.098</td>
<td>0.128</td>
</tr>
<tr>
<td>19</td>
<td>0.456</td>
<td>0.575</td>
<td>43</td>
<td>0.301</td>
<td>0.389</td>
<td>500</td>
<td>0.088</td>
<td>0.115</td>
</tr>
<tr>
<td>20</td>
<td>0.444</td>
<td>0.561</td>
<td>44</td>
<td>0.297</td>
<td>0.384</td>
<td>600</td>
<td>0.080</td>
<td>0.105</td>
</tr>
<tr>
<td>21</td>
<td>0.433</td>
<td>0.549</td>
<td>45</td>
<td>0.294</td>
<td>0.380</td>
<td>700</td>
<td>0.074</td>
<td>0.097</td>
</tr>
<tr>
<td>22</td>
<td>0.423</td>
<td>0.537</td>
<td>46</td>
<td>0.291</td>
<td>0.376</td>
<td>800</td>
<td>0.070</td>
<td>0.081</td>
</tr>
<tr>
<td>23</td>
<td>0.413</td>
<td>0.526</td>
<td>47</td>
<td>0.288</td>
<td>0.372</td>
<td>900</td>
<td>0.065</td>
<td>0.086</td>
</tr>
<tr>
<td>24</td>
<td>0.404</td>
<td>0.515</td>
<td>48</td>
<td>0.284</td>
<td>0.368</td>
<td>1000</td>
<td>0.062</td>
<td>0.081</td>
</tr>
<tr>
<td>25</td>
<td>0.396</td>
<td>0.505</td>
<td>49</td>
<td>0.281</td>
<td>0.364</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>0.388</td>
<td>0.496</td>
<td>50</td>
<td>0.279</td>
<td>0.361</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## LAMPIRAN Z

### TABEL UJI F

<table>
<thead>
<tr>
<th>Table of F-statistics α = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>4    2.88 3.75 4.29 5.05 5.89 6.63 7.86 9.04 10.32 11.80 13.36 15.33 17.87 20.69 23.96</td>
</tr>
<tr>
<td>5    2.73 3.57 4.10 4.77 5.53 6.29 7.49 8.57 9.78 11.19 12.74 14.86 17.65 20.60 24.03</td>
</tr>
<tr>
<td>7    2.51 3.29 3.77 4.40 5.10 5.82 6.99 8.04 9.20 10.64 12.16 14.33 17.03 20.00 23.36</td>
</tr>
<tr>
<td>8    2.42 3.18 3.64 4.26 4.95 5.65 6.81 7.84 8.97 10.38 11.90 14.05 16.72 19.78 23.12</td>
</tr>
<tr>
<td>9    2.34 3.07 3.51 4.10 4.78 5.47 6.63 7.64 8.74 10.13 11.63 13.76 16.41 19.44 22.85</td>
</tr>
<tr>
<td>10   2.27 2.98 3.40 4.00 4.67 5.34 6.47 7.46 8.53 9.89 11.37 13.47 16.09 19.10 22.50</td>
</tr>
<tr>
<td>12   2.16 2.83 3.29 3.88 4.54 5.20 6.31 7.28 8.34 9.69 11.15 13.22 15.85 18.88 22.28</td>
</tr>
<tr>
<td>15   2.04 2.67 3.13 3.70 4.35 5.00 6.10 7.06 8.11 9.44 10.90 12.95 15.56 18.58 21.97</td>
</tr>
<tr>
<td>20   1.92 2.50 2.94 3.49 4.13 4.77 5.86 6.80 7.82 9.13 10.57 12.59 15.17 18.17 21.55</td>
</tr>
<tr>
<td>30   1.81 2.37 2.79 3.33 3.95 4.56 5.63 6.55 7.54 8.83 10.27 12.27 14.84 17.82 21.18</td>
</tr>
<tr>
<td>50   1.71 2.24 2.64 3.16 3.77 4.37 5.42 6.33 7.29 8.56 9.99 11.97 14.49 17.47 20.84</td>
</tr>
<tr>
<td>100  1.55 2.09 2.44 2.88 3.48 4.06 5.08 5.98 6.90 8.14 9.55 11.48 13.95 16.88 20.01</td>
</tr>
</tbody>
</table>

Note: The table values are critical F-values for different degrees of freedom and significance levels.