# SFI TEST REPORT FOR LIGHT ALLOY WHEEL

<table>
<thead>
<tr>
<th>Reference No.</th>
<th>101127</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>CF5</td>
</tr>
<tr>
<td>Nominal designation of rim</td>
<td>18×9.5J</td>
</tr>
<tr>
<td>Offset (mm)</td>
<td>+62.75</td>
</tr>
<tr>
<td>P.C.D. (mm)</td>
<td>130</td>
</tr>
<tr>
<td>Number of bolt holes</td>
<td>5</td>
</tr>
<tr>
<td>Structure</td>
<td>1-PC</td>
</tr>
<tr>
<td>Material</td>
<td>A356-T6</td>
</tr>
<tr>
<td>Manufacturing method</td>
<td>FLOW FORMING</td>
</tr>
</tbody>
</table>

## 1. Tire used for test

<table>
<thead>
<tr>
<th>Item</th>
<th>Nominal designation of tire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radial load endurance test</td>
<td>285/60R18</td>
</tr>
<tr>
<td>Impact test</td>
<td>235/40R18</td>
</tr>
</tbody>
</table>

PCD  \(\circ\) 15.75*24.5  HUB: 74.1

MAX LOADING: 1520LBS

## 2. Testing conditions and results

1. Rotary bending fatigue test  
   - Date of test, (Month) 11 (Day) 10 (Year) 2010
   - Testing equipment approval number  A-238
   - Bending moment during test (kgf.m) 384  
   - Rotational speed for test 100,000 circles  
   - Damage to disk wheel None  
   - Loosening of tightening section OK  
   - Evaluation Qualified/Disqualified

   Used in calculation of bending moment [kN] [kgf]  
   \[ r = 689.47 \text{ (m) } \quad d = 0.0628 \text{ (m) } \quad W = 0.4064 \text{ (kgs) } \]

   Calculated bending moment value M [kNm] [kgf.m]  
   \[ r = 383.11 \text{ (m) } d (m) \]

2. Radial load endurance test  
   - Date of test, (Month) 11 (Day) 12 (Year) 2010
   - Testing equipment approval number  B-224
   - Pre-test air pressure [kpa] [kgf/cm²] 460  
   - Radial load during test [kN] [kgf] 1552  
   - Rotational speed for test 500,000 circles  
   - Damage to disk wheel None  
   - Loosening of fixture section etc. OK  
   - Evaluation Qualified/Disqualified

   Used in calculation of Radial load[kN] [kgf] Calculated Radial load Q 689.47 [kgf] W 1551.31 [kgs]

3. Impact test 13º  
   - Date of test, (Month) 11 (Day) 10 (Year) 2010
   - Testing equipment approval number  C-297
   - Pre-test air pressure [kpa] [kgf/cm²] 200  
   - Total width (mm) 239  
   - Weight mass (kg) 594  
   - Drop height (mm) 230  
   - Impact position (º) 0º/180º  
   - Damage to disk wheel NONE  
   - Air leakage OK  
   - Evaluation Qualified/Disqualified

4. Overall evaluation: Qualified/Disqualified

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Corporation: Forgestar
Contact: Wong