# SFI TEST REPORT FOR LIGHT ALLOY WHEEL

## Model#AC83U
- Corporate name: Forgestar
- Contact: Wong

![Light Alloy Wheel Image]

### Reference No.

<table>
<thead>
<tr>
<th>Type</th>
<th>Nominal designation of rim</th>
<th>20×10J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offset (mm)</td>
<td>P.C.D. (mm)</td>
<td>130</td>
</tr>
<tr>
<td>Number of bolt holes</td>
<td>Structure</td>
<td>1-PC</td>
</tr>
<tr>
<td>Material</td>
<td>A356-T6</td>
<td></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>285/50R20</td>
</tr>
<tr>
<td>Impact test</td>
<td>255/40R20</td>
</tr>
</tbody>
</table>

**PCD**: 15.75*30.93

**MAX LOADING**: 1600LBS

## 2. Testing conditions and results

### (1) Rotary bending fatigue test

- **Date of test**: (Month) 04 (Day) 13 (Year) 2011
- **Testing equipment approval number**: A-238
- **Bending moment during test (kgf.m)**: 395
- **Rotational speed for test**: 100,000 circles
- **Damage to disk wheel**: None
- **Loosening of tightening section**: OK
- **Evaluation**: Qualified

Used in calculation of bending moment [kN] [kgf]:

\[ r \times 725.76 \text{ (m)} \times d \times 0.055 \text{ (m)} \times W \times 0.4064 \text{ (kgs)} \]

Calculated bending moment value \( M \) [kNm] [kgfm]:

\[ r \times 394.21 \text{ (m)} \times d \text{ (m)} \]

### (2) Radial load endurance test

- **Date of test**: (Month) 04 (Day) 14 (Year) 2011
- **Testing equipment approval number**: B-224
- **Pre-test air pressure [kpa][kgf/cm²]**: 460
- **Radial load during test [kN][kgf]**: 1633
- **Rotational speed for test**: 500,000 circles
- **Damage to disk wheel**: None
- **Loosening of fixture section etc.**: OK
- **Evaluation**: Qualified

Used in calculation of Radial load[kN][kgf]:

\[ Q \times 725.76 \text{ (kgf)} \times W \times 1632.95 \text{ (kgs)} \]

### (3) Impact test 13º

- **Date of test**: (Month) 04 (Day) 13 (Year) 2011
- **Testing equipment approval number**: C-297
- **Pre-test air pressure [kpa][kgf/cm²]**: 200
- **Total width (mm)**: 259
- **Weight mass (kg)**: 616
- **Drop height (mm)**: 230
- **Impact position (°)**: 0°/180°
- **Damage to disk wheel**: NONE
- **Air leakage**: None
- **Evaluation**: Qualified

### (4) Overall evaluation: Qualified