Key Features

Outstanding resistance to oxidation & other forms of high temperature corrosion

Higher mechanical properties at elevated temperatures than Inconel 600

High temperature static applications

INCONEL® 601 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths

IMPORTANT
We will manufacture to your required mechanical properties.

key advantages to you, our customer

RANGE
0.025mm to 21mm (.001" to .827")

Order 3m to 3t (10ft to 6000Lbs)

Delivery: within 3 weeks

Wire to your spec
E.M.S available
Technical support

Trade name of Special Metals Group of Companies.
### Chemical Composition

<table>
<thead>
<tr>
<th>Element</th>
<th>Min %</th>
<th>Max %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ni</td>
<td>58.00</td>
<td>63.00</td>
</tr>
<tr>
<td>Cr</td>
<td>21.00</td>
<td>25.00</td>
</tr>
<tr>
<td>S</td>
<td>-</td>
<td>0.015</td>
</tr>
<tr>
<td>Mn</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td>Al</td>
<td>1.00</td>
<td>1.70</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>0.10</td>
</tr>
<tr>
<td>Cu</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td>Si</td>
<td>-</td>
<td>0.50</td>
</tr>
<tr>
<td>Fe</td>
<td></td>
<td>BAL</td>
</tr>
</tbody>
</table>

### Specifications

- **ASTM B166**

### Key Features

- Outstanding resistance to oxidation & other forms of high temperature corrosion
- Higher mechanical properties at elevated temperatures than Inconel 600

### Typical Applications

- Petrochemical - Processing
- Industrial Furnaces
- Gas Turbine - Components
- Heat Treating - Equipment

### Designations

- W.Nr. 2.4851
- UNS N06601
- AWS 011

### Static Application

- Still/fixed/motionless/rigid

### Density

- 8.11 g/cm³
- 0.293 lb/in³

### Melting Point

- 1411 °C
- 2571 °F

### Coefficient of Expansion

- 13.75 μm/m °C (20 – 100°C)
- 7.6 x 10⁻⁶ in/in °F (70 – 212 °F)

### Modulus of Rigidity

- 81.2 kN/mm²
- 11777 ksi

### Modulus of Elasticity

- 206.5 kN/mm²
- 29951 ksi

### Heat Treatment of Finished Parts

<table>
<thead>
<tr>
<th>Condition as supplied by Alloy Wire</th>
<th>Type</th>
<th>Temperature</th>
<th>Time (Hr)</th>
<th>Cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annealed or Spring Temper</td>
<td>Stress Relieve</td>
<td>480 – 870</td>
<td>900 – 1600</td>
<td>1</td>
</tr>
</tbody>
</table>

Temperature depends on composition and amount of cold work.

### Properties

<table>
<thead>
<tr>
<th>Condition</th>
<th>Approx. tensile strength</th>
<th>Approx. operating temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/mm²</td>
<td>ksi</td>
</tr>
<tr>
<td>Annealed</td>
<td>700 – 900</td>
<td>102 – 131</td>
</tr>
<tr>
<td>Spring Temper</td>
<td>1200 – 1450</td>
<td>174 – 210</td>
</tr>
</tbody>
</table>

*The above tensile strength ranges are typical. If you require different please ask.*

*Static application = still/fixed/motionless/rigid