Why Choose Farrat Isomat NR70?
Farrat Isomat is a range of natural, neoprene and nitrile rubbers moulded into innovatively designed, constant shape-factor sheets to provide load bearing vibration isolation. It is used regularly in both structural and industrial applications around the world as full sheets, strips and individual pads.

Isomat NR70 exploits the properties of the highest grade of 70-IRHD natural rubber to provide high levels of noise and vibration isolation with excellent damping properties, while maintaining a relatively low dynamic to static ratio.

Features

- High resilience and high damping qualities
- Low level of creep
- Long working lifetime (>60 years)
- Also available as neoprene CR (for enhanced chemical resistance) and nitrile rubber BR (for further enhanced damping).
- 100% recyclable

Can be supplied as full sheets, cut to size pads and strips (including holes and slots if required) according to the customer’s requirements.

Applications
Farrat Isomat NR70 can be used in a wide range of vibration isolation applications, such as:

**Full Area**
- Full building isolation (raft-slab)
- Heavyweight partition support

**Strips**
- Pre-cast concrete supports (e.g. corbells)

**Pads**
- Acoustic floating floor isolators
- Anti-vibration pads
- Steel/timber frame isolation
- Vibration isolation for machinery/plant
- Isolated foundations for sensitive or high impact machinery

For more information on using Isomat NR70 (including standard details), please see the following Farrat Technical Brochures:

- Applications - Floating Floors
- Applications - Full Building Isolation

Available to download at: [www.farrat.com](http://www.farrat.com)
### CHARACTERISTICS

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>TEST STANDARD</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>BS ISO 48:2010</td>
<td>70 (+/- 3) IRHD</td>
</tr>
<tr>
<td>Density</td>
<td>BS EN ISO 845</td>
<td>850 Kg/m³</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>BS ISO 37:2011</td>
<td>23.8 N/mm²</td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>BS ISO 37:2011</td>
<td>509 %</td>
</tr>
<tr>
<td>Compression Set (24hrs@87ºC)</td>
<td>ISO 815-1:2008</td>
<td>22 %</td>
</tr>
<tr>
<td>Tear Resistance Trouser Method A</td>
<td>ISO 34-1:2010</td>
<td>18.1 kN/m</td>
</tr>
<tr>
<td>Static Shear Modulus</td>
<td>BS ISO 1827:2011</td>
<td>1.52 N/mm²</td>
</tr>
<tr>
<td>Creep</td>
<td>ISO 8013 : 2006</td>
<td>2.9 % per decade</td>
</tr>
</tbody>
</table>

### Characteristics

- **Static Compression Modulus, \( E_c \)**
  
  Varies with load/thickness – see graphs

- **Dynamic to Static Ratio**
  
  Determined using in-house test methodology.

- **Damping Ratio, \( C/C_{f_n} \)**
  
  6.2 %

- **Max Static Pressure (Overload)**
  
  Test pad dimensions: 75 x 75mm

- **Max Residual Compression After Overload**
  
  2.0 %

- **Standard Sheet Size**
  
  +/-5% 1010x505 mm

- **Operating Temperature**
  
  -30 to +60 ºC

- **Operational Life**
  
  N/A 60 Years

### Availability

#### Typical Lead Times

- **STOCK**
  - 20 mm: 2-3 working days
  - 25 mm: 2-3 working days
  - 37 mm: 2-3 working days
  - 50 mm: 2-3 working days

- **NON-STOCK**
  - 20 mm: 2-3 working weeks
  - 25 mm: 2-3 working weeks
  - 37 mm: 2-3 working weeks
  - 50 mm: 2-3 working weeks

- **BESPOKE**
  - 2-3 working weeks

If cutting is required add +5 days

### Key

- **50 mm**
- **37 mm**
- **25 mm**
- **20 mm**

### Static Deflection

![Static Deflection Graph](image)

### Natural Frequency

![Natural Frequency Graph](image)

### Isolation Efficiency (Transmissibility)

![Isolation Efficiency Graph](image)

**NOTE:** The below graphs are valid for isolators with a shape factor up to 1.0, for other shape factors, please contact Farrat for application specific performance prediction.