Why Choose Farrat Isomat NR50?

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 NR50 exploits the properties of the highest grade of 50-IRHD natural rubber to provide very high levels of noise and vibration isolation with minimal damping, and a low dynamic to static ratio.

Features

- Materials tested and approved to BS 6177:1982 and BS EN 1337-3:2005
- High resilience and low 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 enhanced damping).

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 NR50 can be used in a wide range of vibration isolation applications, such as:

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

Strips
- Light/Medium weight partition support
- Pre-cast concrete supports

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 NR50 (including standard details), please see the following Farrat Technical Brochures:

- Floating Floors
- Full Building Isolation

Available to download at: www.farrat.com
**CHARACTERISTICS** | **TEST STANDARD** | **PROPERTIES** | **UNIT**
---|---|---|---
Hardness | BS ISO 48:2010 | 50 (+/- 3) | IRHD
Density | BS EN ISO 845 | 750 | Kg/m²
Tensile Strength | BS ISO 37:2011 | 25.1 | N/mm²
Elongation at Break | BS ISO 37:2011 | 636 | %
Compression Set (24hrs at 70°C) | ISO 815-1:2008 | 21 | %
Tear Resistance Trouser Method A | ISO 34-1:2010 | 12.0 | kN/m
Static Shear Modulus | BS ISO 1827:2011 | 0.67 | N/mm²
Creep | ISO 8013:2006 | 2.0 | % per decade

**CHARACTERISTICS** | **TEST STANDARD** | **PROPERTIES** | **UNIT**
---|---|---|---
Static Compression Modulus, $E_c$ | Varies with load/thickness - see graphs
Dynamic to Static Ratio | Determined using in-house test methodology | 1.6 | N/A
Damping Ratio, $C/C_c$ @ $f_n$ | 2.2 | %
Max Static Pressure (Overload) Test pad dimensions: 75 x 75mm | 0.52 (0.79) | N/mm²
Max Residual Compression After Overload | 2.0 | %
Standard Sheet Size | +/- 5% | 1005 x 505 mm
Operating Temperature | N/A | -30 to +60 °C
Operational Life | N/A | 60 Years

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**Static Deflection**

![Static Deflection Graph]

**Natural Frequency**

![Natural Frequency Graph]

**Isolation Efficiency (Transmissibility)**

![Isolation Efficiency Graph]

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**Key**

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Tread (Bottom/Top)</th>
<th>Stock</th>
</tr>
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<tbody>
<tr>
<td>50 mm</td>
<td>Isomat/Plain</td>
<td>Non-Stock</td>
</tr>
<tr>
<td>37 mm</td>
<td>Isomat/Plain</td>
<td>Non-Stock</td>
</tr>
<tr>
<td>25 mm</td>
<td>Isomat/Treaded</td>
<td>Stock</td>
</tr>
<tr>
<td>20 mm</td>
<td>Isomat/Isomat</td>
<td>Stock</td>
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</tbody>
</table>

**Availability**

<table>
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<tr>
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<th>Stock</th>
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**Typical Lead Times**

<table>
<thead>
<tr>
<th>Type</th>
<th>Lead Time</th>
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<tbody>
<tr>
<td>STOCK</td>
<td>2-3 working days</td>
</tr>
<tr>
<td>NON-STOCK</td>
<td>2-3 working weeks</td>
</tr>
<tr>
<td>BESPOKE</td>
<td>4-6 working weeks</td>
</tr>
<tr>
<td></td>
<td>If cutting is required add +5 days</td>
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