ELASTOSIL® N189 BLACK Moisture Curing Silicone Rubber (RTV-1)

ELASTOSIL® N189 BLACK is a non-slump, neutral-cure silicone sealant which cures at room temperature under influence of atmospheric moisture. It exhibits excellent primerless adhesion to many substrates and has good resistance to mineral oil and coolants. ELASTOSIL® N189 BLACK moreover shows excellent heat stability.

Properties

- non-corrosive
- coolant and oil resistant
- excellent heat resistance up to 200°C, peak temperatures up to 220°C
- electrically ablative

Special features

- Coolant resistant
- Good adhesion to metals, glass and ceramics
- Heat resistant
- Non-slump
- Oil resistant
- One-component
## Technical data

### Properties Uncured

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin formation time⁽¹⁾</td>
<td>-</td>
<td>15 min</td>
<td>-</td>
</tr>
<tr>
<td>Viscosity, dynamic D = 0.5 1/s</td>
<td>25 °C</td>
<td>900000 mPa·s</td>
<td>ISO 3219</td>
</tr>
<tr>
<td>Viscosity, dynamic D = 25 1/s</td>
<td>25 °C</td>
<td>100000 mPa·s</td>
<td>ISO 3219</td>
</tr>
<tr>
<td>Color</td>
<td>-</td>
<td>black</td>
<td>-</td>
</tr>
<tr>
<td>Density</td>
<td>23 °C</td>
<td>approx. 1.07 g/cm³</td>
<td>ISO 1183-1 A</td>
</tr>
<tr>
<td>Extrusion rate - mass flow⁽²⁾</td>
<td>-</td>
<td>11 g/10s</td>
<td>internal method</td>
</tr>
</tbody>
</table>

⁽¹⁾ at 23 °C, 50 % RH  
⁽²⁾ 3,1mm nozzle / pressure 0,21 N/mm²

These figures are only intended as a guide and should not be used in preparing specifications.

### Properties Cured

Curing conditions: 2 mm, 14 days storage at 23 °C and 50 % RH.

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume resistivity</td>
<td>-</td>
<td>50 Ohmcm</td>
<td>IEC 60093</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>-</td>
<td>300 %</td>
<td>ISO 37</td>
</tr>
<tr>
<td>Tensile strength</td>
<td>-</td>
<td>1.7 N/mm²</td>
<td>ISO 37</td>
</tr>
<tr>
<td>Hardness Shore A</td>
<td>-</td>
<td>30</td>
<td>ISO 868</td>
</tr>
<tr>
<td>Density</td>
<td>23 °C</td>
<td>1.09 g/cm³</td>
<td>ISO 2781</td>
</tr>
<tr>
<td>Color</td>
<td>-</td>
<td>black</td>
<td>-</td>
</tr>
<tr>
<td>Tear strength</td>
<td>-</td>
<td>7 N/mm</td>
<td>ASTM D 624 B</td>
</tr>
</tbody>
</table>

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All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product’s fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties’ rights.

### Applications

- Formed-In-Place-Gaskets (Wet Type)
- Household Applications
Application details

Multipurpose grade for sealing and bonding in technical applications, e.g. CIPG- and FIPG-applications in automotive engines (oil pan, oil separator, valve covers)

Processing

ELASTOSIL® N189 BLACK shows good primerless adhesion to many substrates. We recommend to run preliminary tests to optimize conditions for the particular application.

Detailed processing instructions are given in our brochure “ROOM TEMPERATURE VULCANIZING (RTV) SILICONES - MATERIAL AND PROCESSING GUIDELINES”

Packaging and storage

Storage

The ‘Best use before end’ date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety notes

During vulcanization of ELASTOSIL® N189, a total of 4% by weight of an oxime is being split off. These vapours should not be inhaled for long periods or in high concentration. Work areas should therefore be well ventilated. Contact of unvulcanized silicone rubber with eyes and mucous membranes must be avoided as this would cause irritation. However if it does happen, rinse the affected area thoroughly with water.

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site http://www.wacker.com.

For technical, quality or product safety questions, please contact:

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info@wacker.com, www.wacker.com

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