**Simmerring B1.../SL**

**Product description**

Standard types with open outer metal sleeve. With or without dust lip (SL) to protect against exterior soiling.

**Product advantages**

- Broad range of applications in every sector of industry
- Metal housing for especially firm and precise seating in the bore. (Note: limited static sealing on the outer casing for low viscosity and gaseous media)
- Additional dust lip as additional seal against moderate to medium dust and dirt ingress from outside (B1FUDSL). (Note: can lead to temperature increase from frictional heat)

**Product properties**

- Outer casing: metal, machined
- Spring-loaded sealing lip
- Additional dust lip (B1...SL)
- Sealing lip profile, sealing lip machined on the front face
- Sealing lip profile, finished sealing lip (B1FUD/B1FUDSL)

**Application**

- Axles for agricultural and construction machinery
- Power take-off gears in agricultural and construction machinery transmissions and axles
- Machine tools

**Material**

<table>
<thead>
<tr>
<th>Material</th>
<th>Acrylonitrile-butadiene rubber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>72 NBR 902</td>
</tr>
<tr>
<td>Colour</td>
<td>Blue</td>
</tr>
<tr>
<td>Hardness</td>
<td>72 Shore A</td>
</tr>
</tbody>
</table>

75 FKM 585 and 75 FKM 595 on enquiry.

**Components**

<table>
<thead>
<tr>
<th>Metal insert</th>
<th>Unalloyed steel DIN EN 10027-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>Spring steel DIN EN 10270-1</td>
</tr>
</tbody>
</table>

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Operating conditions

<table>
<thead>
<tr>
<th>Media</th>
<th>Mineral oils, synthetic oils*, greases</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>–40 ... +100; short term up to ...+120 °C</td>
</tr>
</tbody>
</table>

Max. permissible values depend on the other operating conditions.

Fitting & installation

Careful fitting according to DIN 3760 is a prerequisite for the correct function of the seal ➔ Technical Manual.

Shaft

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>ISO h 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runout</td>
<td>IT 8</td>
</tr>
<tr>
<td>Roughness</td>
<td>$R_a = 0.2 ... 0.8 \mu m$</td>
</tr>
<tr>
<td></td>
<td>$R_a = 1.0 ... 5.0 \mu m$</td>
</tr>
<tr>
<td></td>
<td>$R_{max} \leq 6.3 \mu m$</td>
</tr>
<tr>
<td>Hardness</td>
<td>45 ... 60 HRC</td>
</tr>
<tr>
<td>Finish</td>
<td>No lead; preferably plunge ground</td>
</tr>
</tbody>
</table>

Housing bore

<table>
<thead>
<tr>
<th>Tolerance</th>
<th>ISO H8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roughness metal outer surface OD</td>
<td>$R_a = 6.3 ... 16 \mu m$</td>
</tr>
</tbody>
</table>

Range of dimensions for shafts-Ø $d_1$

| Simmerring B1... | 5 ... 500 mm |
| Simmerring B1...SL | 12 ... 290 mm |