## Data Sheet

**Material**
mixed-cell PU elastomer (polyurethane)

**Colour**
green

### Standard delivery dimension
- Thickness: 12.5 mm / 25 mm
- Roll: 1.5 m wide, 5.0 m long
- Strip: up to 1.5 m wide, up to 5.0 m long

Other dimensions, punched and molded parts on request.

### Range of use

<table>
<thead>
<tr>
<th>Compressive load</th>
<th>Deformation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Static range of use</strong></td>
<td>shape factor-dependent, values apply to shape factor ( q = 3 )</td>
</tr>
<tr>
<td>(static loads)</td>
<td>up to 0.055 N/mm²</td>
</tr>
<tr>
<td><strong>Dynamic range of use</strong></td>
<td>up to 0.076 N/mm²</td>
</tr>
<tr>
<td>(static plus dynamic loads)</td>
<td></td>
</tr>
<tr>
<td><strong>Load peaks</strong></td>
<td>up to 2.0 N/mm²</td>
</tr>
<tr>
<td>(occasional, brief loads)</td>
<td></td>
</tr>
</tbody>
</table>

### Standard Sylomer® range

### Static range of use

- **SR 55**: 0.055 N/mm²
- **SR 11**: 0.076 N/mm²
- **SR 22**: 2.0 N/mm²

### Mechanical loss factor
- 0.17
  - DIN 53513°
  - temperature-, frequency-, specific load- and amplitude-dependent

### Rebound resilience
- 55%
  - EN ISO 8307°

### Compression hardness
- 0.06 N/mm²
  - EN ISO 844°

### Compression set
- < 5%
  - EN ISO 1856°

### Static modulus of elasticity
- 0.34 N/mm²
  - at specific load of 0.055 N/mm²

### Dynamic modulus of elasticity
- 0.75 N/mm²
  - at specific load of 0.055 N/mm², 10 Hz

### Static shear modulus
- 0.11N/mm²
  - DIN ISO 1827°

### Dynamic shear modulus
- 0.20 N/mm²
  - at a pretension of 0.055 N/mm², 10 Hz

### Min. tensile stress at rupture
- 0.60 N/mm²
  - EN ISO 527-3/5/100°

### Min. tensile elongation at rupture
- 250%
  - EN ISO 527-3/5/100°

### Abrasion
- ≤ 1100 mm³
  - DIN ISO 4649°

### Coefficient of friction (steel)
- 0.5
  - Getzner Werkstoffe

### Coefficient of friction (concrete)
- 0.7
  - Getzner Werkstoffe

### Specific volume resistance
- > 10¹⁰ Ω·cm
  - DIN EN 62631-3-1°

### Thermal conductivity
- 0.06 W/(mK)
  - DIN EN 12664

### Temperature range
- -30°C to 70°C

### Flammability
- class E
  - EN ISO 11925-2
  - normal combustible, EN 13501-1

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1 Measurement / evaluation in accordance with the relevant standard
2 The measurement is performed on a density-dependent basis with differing test parameters
3 Values apply to shape factor \( q = 3 \)

All information and data is based on our current knowledge. The data can be applied for calculations and as guidelines, are subject to typical manufacturing tolerances and are not guaranteed. Material properties as well as their tolerances can vary depending on type of application or use and are available from Getzner on request.

Further information can be found in VDI Guideline 2062 (Association of German Engineers) as well as in glossary.

Further characteristic values on request.
Quasi-static load deflection curve measured with a loading rate of 0.0055 N/mm²/s.

Testing between flat and plane-parallel steel plates, recording of 3rd load, with filtered starting range in accordance with ISO 844, testing at room temperature.

Shape factor $q = 3$

Quasi-static modulus of elasticity as tangential modulus from the load deflection curve. Dynamic modulus of elasticity from sinusoidal excitation with a velocity level of 100 dBv re. $5 \times 10^{-8}$ m/s corresponding to a vibration amplitude of 0.22 mm at 10 Hz and 0.08 mm at 30 Hz.

Measurement in accordance with DIN 53513

Shape factor $q = 3$
Natural frequencies of a vibratory system with a single degree of freedom, consisting of a mass and an elastic bearing made of Sylomer® SR 55 on a rigid surface.

Parameter: thickness of the Sylomer® bearing

Shape factor $q = 3$

Reduction of the transmitted mechanical vibrations by implementation of an elastic bearing consisting of Sylomer® SR 55 based on a stiff subgrade.

Parameter: factor of transmission in dB, isolation rate in %
Influence of the shape factor

The graphs show the material properties at different shape factors.

Fig. 5: Static range of use in relation to the shape factor
Fig. 6: Deflection \(^4\) in the relation to the shape factor
Fig. 7: Dynamic modulus of elasticity \(^4\) at 10 Hz in relation to the shape factor
Fig. 8: Natural frequency \(^4\) in relation to the shape factor

\(^4\) Reference values: specific load 0.055 N/mm\(^2\), shape factor \(q = 3\)

Material properties can be determined using the online calculation program FreqCalc. The program can be accessed via www.getzner.com (registration necessary).