**Technical Data Sheet**

**LOXEOAL 83-54**

**Description**

High strength anaerobic adhesive for locking and sealing of studs, nuts, bolts and threaded fasteners not requiring dismantling. It can be used on all metals, either in free or forced matchings. It provides temperature resistance up to +200°C and high unscrewing strength. Highly resistant to heat, corrosion, vibrations, water, gases, oils, hydrocarbons, and many chemicals.

**Physical properties**

- **Composition**: anaerobic methacrylate
- **Colour**: green
- **Fluorescence**: under blue light
- **Viscosity (+25°C - mPa s)**: 450 - 650
- **Specific weight (+25°C - g/ml)**: 1.1
- **max diameter of thread/ gap filling**: M 20/0.15 mm
- **Flash point**: > +100°C
- **Shelf life +25°C**: 1 year in original unopened packaging

**Curing properties**

- **Bolt M10 x 20 Zn - quality 8.8 - nut h = 0.8 d at +25°C**: 10 - 20 minutes
- **Handling cure time**: 1 - 3 hours
- **Functional cure time**: 5 - 10 hours
- **Locking torque (ISO 10964)**:
  - breakaway: 25 - 35 N m
  - prevailing: 50 - 65 N m
- **Shear strength (ISO 10123)**: 15 - 20 N/mm²
- **Temperature range**: -55°C/+200°C

**Chemical resistance**

Aged under conditions below after 24 hours from polymerisation at indicated temperature.

<table>
<thead>
<tr>
<th>Substance</th>
<th>°C</th>
<th>Resistance after 100 h</th>
<th>Resistance after 1000 h</th>
<th>Resistance after 5000 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor oil</td>
<td>125</td>
<td>good</td>
<td>discrete</td>
<td>discrete</td>
</tr>
<tr>
<td>Gear box oil</td>
<td>125</td>
<td>good</td>
<td>discrete</td>
<td>discrete</td>
</tr>
<tr>
<td>Gasoline</td>
<td>25</td>
<td>excellent</td>
<td>excellent</td>
<td>excellent</td>
</tr>
<tr>
<td>Water/glycol 50%</td>
<td>87</td>
<td>excellent</td>
<td>good</td>
<td>good</td>
</tr>
<tr>
<td>Brakes oil</td>
<td>25</td>
<td>excellent</td>
<td>excellent</td>
<td>excellent</td>
</tr>
</tbody>
</table>

For information on resistance with other chemicals, contact Loxeal Technical Service

**Environmental resistance**

The graph below shows the mechanical strength vs. temperature. ISO 10964 - Bolt M10 x 20 Zn - quality 8.8 - nut h = 0.8 d at +25°C - pre-torque 5 N m

**Directions for use**

The product is recommended for use on metal surfaces. Clean and degrease parts before bonding with Loxeal Cleaner 10.

Apply product to fill completely the gap, assemble parts and hold on for curing time. Liquid product can damage coating, some plastics and elastomers and late stress-cracking events might be induced if used with some thermoplastics.

For application on non metal materials, contact Loxeal Technical Service. For disassembly, use normal tools and eventually heat pieces at +150°C/+250°C, remove any residue of cured product mechanically and clean parts with Acetone.

ST8354e/5 09/12 Pag. 1/2
Storage

Keep product in a cool and dry room at no more than +25°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxeal Technical Service.

Safety and handling

Consult Material Safety Data Sheet before use.

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department. Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.