SILBIONE® MED ADH 4100 RTV

High Strength Adhesive

Description

SILBIONE® MED ADH 4100 RTV is a single component silicone adhesive designed for medical applications where a high strength elastic bond of silicone to silicone is needed. SILBIONE® MED ADH 4100 RTV cures at room temperature by exposure to ambient moisture to form a tough, elastic bond. During curing, acetic acid is released as a by-product. SILBIONE® MED ADH 4100 RTV contains no solvents or plasticizers and is designed to exhibit high thixotropy in thin sections, but self level in thick sections.

Applications

• Medical (<30 day implantable)
• Bonding silicone substrates to other silicone substrates

Features

• Very high bond strength
• Cures at room temperature
• Ready-to-use, easy to apply

Typical Properties

<table>
<thead>
<tr>
<th>Typical Properties as Supplied</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless, clear to translucent</td>
</tr>
<tr>
<td>Tack Free Time, minutes</td>
<td>9</td>
</tr>
<tr>
<td>Durometer, Shore A</td>
<td>29</td>
</tr>
<tr>
<td>Tensile Strength, psi (N/mm²)</td>
<td>820 (5.7)</td>
</tr>
<tr>
<td>Elongation, %</td>
<td>780</td>
</tr>
<tr>
<td>Tear Strength, ppi (N/mm)</td>
<td>85 (14.9)</td>
</tr>
<tr>
<td>Cohesive/Adhesive Strength, ppi (N/mm)</td>
<td>30 (5.3)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.09</td>
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<tr>
<td>Cytotoxicity</td>
<td>Non-toxic</td>
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</tbody>
</table>

Please note: The typical properties listed in this bulletin are not intended for use in preparing specifications for any particular application of SILBIONE® silicone materials. Please contact our Technical Service Department for assistance in writing specifications.

Instructions for use

SILBIONE® MED ADH 4100 RTV is a ready to use product. Surfaces to be bonded with adhesive should be pre-scrubbed thoroughly with a clean, soft sponge or soft-bristled brush in hot water-soap solution to remove possible surface contaminants. Do not use synthetic detergents or oil-based soaps. Rinse with copious amounts of hot water, then rinse with distilled water and dry thoroughly. Apply SILBIONE® MED ADH 4100 RTV adhesive and then mate the surfaces together with light pressure. A bond thickness of 0.010” minimum is recommended to achieve optimum strength. Partial cure is typically achieved in 20 minutes. Ultimate cure and optimal physical properties will be achieved after 24-120 hours at 25°C and ambient moisture.

Sterilization

Uncured SILBIONE® MED ADH 4100 RTV may be sterilized in the unopened tube by dry heating the sealed tube for 2 hours at 150°C. After the tube contents are dry heat sterilized, the tube exterior may be sterilized by ethylene oxide or steam autoclave. Gamma radiation is not suitable for sterilizing uncured adhesive. Cured adhesive may be sterilized by ethylene oxide, steam, dry heat or gamma radiation.
# Storage and shelf life

**SILBIONE® MED ADH 4100 RTV** when stored in its original unopened packaging, at a temperature of 30°C, may be stored for 6 months from the date of manufacture. Beyond this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

# Safety

Please read the container labels for **SILBIONE® MED ADH 4100 RTV** or consult the Material Safety Data Sheet (MSDS) before handling for safe use, physical and health hazard information. The MSDS is not included with the product packaging, but can be obtained by contacting Bluestar Silicones at 866-474-6342 or consult your Bluestar Silicones representative.

# Packaging

**SILBIONE® MED ADH 4100 RTV** is available in 90 gram tubes.

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