Since the beginning of time, people have looked up at the stars and longed to explore the world above them. For more than 60 years, Momentive has been part of the journey into space—providing the silicone in the boots of the first astronaut to walk on the moon—in the rockets that propelled those pioneers into orbit—and on every US manned space flight since. Building on the legacy of our past, Momentive continues to develop innovative silicones that help today’s aerospace pioneers reach ever greater heights. From launch to landing, Momentive’s advanced silicone products enable the next generation of space exploration.

**Benefits of Low Outgassing Silicones**
- Loss of less than 1% of mass in a vacuum*
- Produces less than 0.1% volatile condensable materials in a vacuum*
- Low outgassing products meet or exceed ASTM E-595 testing standards
- Maintain critical properties for extended time over the wide range of extreme temperatures encountered by spacecraft -130°C (-200°F) to 260°C (500°F)
- Remains flexible in the extreme low temperatures of space
- Excellent thermal insulation
- Very strong adhesion with primer to support structural integrity
- UV and ozone resistance
- Room temperature cure
- Available in paste to flowable viscosities to accommodate a wide range of applications

**ASTM E595 Results: CVM (≤0.10%)**

<table>
<thead>
<tr>
<th>RTV566</th>
<th>RTV142</th>
<th>RTV142C</th>
<th>RTV567</th>
<th>RTR57LV</th>
<th>LTR495LV</th>
<th>LTR395LV</th>
<th>LTR295LV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.04</td>
<td>0.03</td>
<td>0.01</td>
<td>0.02</td>
<td></td>
</tr>
</tbody>
</table>

**ASTM E595 Results: TML (≤1.00%)**

<table>
<thead>
<tr>
<th>RTV566</th>
<th>RTV142</th>
<th>RTV142C</th>
<th>RTV567</th>
<th>RTR57LV</th>
<th>LTR495LV</th>
<th>LTR395LV</th>
<th>LTR295LV</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10</td>
<td>0.21</td>
<td>0.45</td>
<td>0.52</td>
<td>0.15</td>
<td>0.01</td>
<td>0.14</td>
<td></td>
</tr>
</tbody>
</table>

*Low outgassing testing performed using ASTM E595 Low Outgas Test Procedures in a vacuum environment. Test results. Actual results may vary.

**POTENTIAL APPLICATIONS**
- Cast in place heat shielding
- Solar array and optical equipment sealing
- Crew capsule applications
- Thermal insulation of sensitive components
- Protective coatings for critical equipment
- Encapsulants & potting for high heat locations
- Interior & exterior adhesives
- Flexible composite coatings

momentive.com/aerospace
Momentive offers an expanding line of low outgassing materials for sealing, protective coatings, electronics packaging, thermal interface materials, thermal protection systems and photovoltaic array assembly. The grades listed below meet or exceed ASTM E-595 standard outlined in NASA SP-R-0022A and European Space Agency PSS-014-702.

### Momentive Performance Materials: Low Outgassing Product Line

<table>
<thead>
<tr>
<th>Product</th>
<th>Cure Chemistry</th>
<th>Description</th>
<th>Potential Applications</th>
<th>Useful Temp. Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTV142</td>
<td>Room Temperature (Alkoxy)</td>
<td>White and translucent, one-component thixotropic paste, offering primerless adhesion</td>
<td>Adhesive, gasketing, sealing, bonding</td>
<td>-60° to 205°C (-75° to 400°F)</td>
</tr>
<tr>
<td>RTV142C</td>
<td>Room Temperature (Alkoxy)</td>
<td>Red, two-component paste with excellent release capabilities and wide temperature performance</td>
<td>Cast-in-place heat shielding, thermal insulation, potting, encapsulating electrical assemblies, PV assembly</td>
<td>-115° to 260°C (-175° to 500°F)</td>
</tr>
<tr>
<td>RTV566</td>
<td>Room Temperature (Alkoxy)</td>
<td>Translucent, two-component flowable adhesive with excellent release properties</td>
<td>Encapsulating electrical assemblies, sealing, flowable</td>
<td>-115° to 205°C (-175° to 400°F)</td>
</tr>
<tr>
<td>RTV567</td>
<td>Room Temperature (Alkoxy)</td>
<td>White, two-component thixotropic paste with excellent release capabilities and variable work and cure times through catalyst options</td>
<td>Cast-in-place heat shielding, thermal insulation, potting and encapsulating of electrical assemblies</td>
<td>-115° to 205°C (-175° to 400°F)</td>
</tr>
<tr>
<td>RTV577LV</td>
<td>Room Temperature (Alkoxy)</td>
<td>White, two-component thixotropic paste with excellent release properties and variable work and cure times through catalyst options</td>
<td>Encapsulating electrical assemblies, thermal insulation, potting and encapsulating of electrical assemblies</td>
<td>-115° to 205°C (-175° to 400°F)</td>
</tr>
</tbody>
</table>

(1) Standard cure conditions are 25°C (77°F)/50% RH
(2) List of potential applications is not exhaustive

---

**Customer Service Centers**

**Americas**
+1 800 295 2392
+1 614 986 2495

**Europe, Middle East, Africa and India**
+00 800 4321 1000
+40 212 044229

**China**
+800 820 0202
+86 21 3860 4892

**Japan**
+81 276 20 6182
+81 276 20 6182

**All Other Countries**
+60 3 9206 1543

---

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER’S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Supplier’s materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier’s products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier’s standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials. Copyright 2018 Momentive Performance Materials Inc. All rights reserved.

momentive.com/aerospace

Silicone RTVs for Low Outgassing Applications