SILICONE GEL SERIES

SOFT, PLIABLE, AND INSULATIVE SILICONE TECHNOLOGY
**BENEFITS OF CHT’S SILICONE TECHNOLOGY**

**SILICONE GELS SERIES**

Silicone gels by CHT are used to protect delicate components and assemblies from vibration, thermal and mechanical shock, as well as guard against moisture corrosion and other atmospheric contaminants. These gels are two-part addition (platinum) cure systems, and most vulcanize at either room temperature or can be heat accelerated to obtain faster cure times. CHT’s silicone gels feature many important physical properties, including low viscosities for easy dispensing, a range of durometers and penetrations, non-slumping thixo gels, and self-bonding capabilities. The majority of CHT’s silicone gels are clear, but can be color tinted for ease of visual identification.

**Capabilities.**

The majority of CHT’s silicone gels are clear, but can be color tinted for ease of visual identification.

**Benefits of CHT’s Silicone Technology**

- Moisture protection
- Excellent shock and vibration resistance
- Room temperature and heat-curing adhesion
- Packages for multiple substrates
- Products with low temperature capabilities to -110°C
- Low volatile materials are available, ASTM E-595
- Optically clear technology available
- Flame retardant, UL listed grades available (See our UL Rating File Number QMFZ2.E205830)

**Useful temperature range**

Temperatures from -55°C to 204°C (Customized temperature ranges are available from -13°C to 260°C)

**Primerless adhesion**

Adhesion packages are available to obtain primerless adhesion to various substrates

**Thermally conductive grades**

Repairable and self-healing

**Corrosion resistant**

Withstand extreme temperatures from -55°C to 204°C (Customized temperature ranges are available from -13°C to 260°C)

**Silicone gels by CHT perform many key functions in electrical components.**

These soft, but resilient gels provide a protective barrier against moisture and environmental contaminants. Materials range from optically clear to lightly tinted grades for contrast enhancement.

**Benefits of CHT’s Silicone Technology**

- Extreme low and high temperature stability
- Chemical and flame resistance
- Thermally conductive grades for heat management
- Environmental protection
- Electronic sensor packaging and protection
- Strong adhesion to a wide variety of substrates with use of a primer

**Special Effects**

CHT offers a selection of silicone gels that are tacky by design and can be used to temporarily adhere special effects prosthetics/makeup to skin or props. These robust silicone gels can also function as a cushioned external prosthesis placed on the actor or prop.

**Benefits of CHT’s Silicone Technology**

- Pigmentable
- Low viscosity for easy dispensing
- Wide range of penetrations
- Removable and reusable
- Tackiness even when exposed to moisture

**LED DISPLAY**

- Customized packaging options available upon request

**CONNECTIONS**

CHT’s silicone gels are used as durable encapsulants in high-performance electronic connector systems. These soft silicone gels protect leads inside the connectors from environmental contamination. Additionally, silicone gels by CHT have excellent resistance to thermal cycling, vibration, and mechanical shock, and will reseal throughout multiple insertions.

**Benefits of CHT’s Silicone Technology**

- Moisture protection
- Self-healing properties
- Withstands thermal cycling
- Non-slumping, thixotropic grades are available
- Room temperature primerless adhesion
- Corrosion-resistant
- Flame retardant, UL listed grades available (See our UL Rating File Number QMFZ2.E205830)

**AEROSPACE**

Silicone gels by CHT are used to create cushioned external prosthetics, while tacky gels can function as an adhesive for the prosthetics. Because CHT’s silicone gels are very soft and retain their form once cured, they provide comfortable padding for hospital beds, wheelchairs, pillows, and sole cushioning in footwear.

**Benefits of CHT’s Silicone Technology**

- Pigmentable
- Primerless adhesion
- Soft, but resilient
- Remains tacky even when exposed to moisture
- Low viscosity for easy dispensing

**ELECTRONICS**

- Conductive technology for thermal management
- Modulus control technology is available to minimize CTE strain
- Excellent shock and vibration resistance
- Variety of both room temperature and heat curing materials
- Flame retardant, UL listed grades available (See our UL Rating File Number QMFZ2.E205830)

**HEALTHCARE**

- Repairable and self-healing
- Grades available that contain a UV tracer for ease of visual identification
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**SILICONE GELS APPLICATIONS**

**AUTOMOTIVE & TRANSPORTATION**

Various forms of silicone materials from CHT are designed to protect power supplies from thermal stress and help maintain their original properties in high voltage functions. These flexible compounds from CHT can be used to coat wires, provide insulation for transformers, and protect electronic controls.

**Benefits of CHT’s Silicone Technology**

- Moisture protection
- High thermal conductivity grades available
- Reparable
- UL listed grades are available (See our UL Rating File Number QMFZ2, E205830)
- Low modulus materials minimize CTE strain
- Low viscosity for fast dispensing
- Self-bonding capabilities

**LED LIGHTING**

Temperature resistant, optically clear silicones can be applied over surface mount LEDs and are designed to be mixed with either diffusants or whitening agents if required. CHT has a wide variety of potting compounds and sealants used in the LED industry that can bond substrates, protect electronics and provide thermal stability.

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**Corrosion resistant**

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CHT has designed a variety of silicone gels for the filtration industry. CHT's silicone gels are used in the pharmaceutical, nuclear, industrial and automotive markets among others.

**Benefits of CHT’s Silicone Technology**
- Excellent resistance to certain cleaning chemicals, such as PAO and DOP
- Moisture protection
- Fast room temperature cures - reducing production times
- Various bonding strengths from removable/repairable to permanent
- Protects components from harsh environmental factors
- Gel interlayer for glare reduction

### FLAT PANEL DISPLAY

CHT offers a series of optically clear silicones to help bond glass and plastics to flat panel and LCD displays.

**Benefits of CHT’s Silicone Technology**
- UV resistant
- Non-yellowing catalyst systems are available
- Pigmentable to provide contrast enhancement
- Various bonding strengths from removable/repairable to permanent
- Protects components from harsh environmental factors
- Gel interlayer for glare reduction

<table>
<thead>
<tr>
<th>Product</th>
<th>Description / Benefits</th>
<th>Mix Ratio</th>
<th>Color</th>
<th>Mixed Viscosity</th>
<th>Gel Time @ 25°C</th>
<th>Duremeter (Shore 00) / Penetration (depth in mm)</th>
<th>Refractive Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>QGel 300</td>
<td>High Strength Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,500 cps</td>
<td>135 min</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 300Y</td>
<td>High Strength Gel, Tinted Yellow</td>
<td>1:1</td>
<td>Transparent Yellow</td>
<td>1,500 cps</td>
<td>135 min</td>
<td>7 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 301</td>
<td>High Strength, Inhibition Resistant Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,500 cps</td>
<td>25 min</td>
<td>7 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 302</td>
<td>Fast Room Temperature Cure</td>
<td>1:1</td>
<td>Transparent</td>
<td>750 cps</td>
<td>30 min</td>
<td>6 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 303</td>
<td>Fast Cure, General Purpose, Part “A” Tinted Red, Part “B” Tinted Blue</td>
<td>1:1</td>
<td>Transparent Purple</td>
<td>725 cps</td>
<td>9 min</td>
<td>6 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 310</td>
<td>General Purpose, Room Temperature Cure</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>45 min</td>
<td>7 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 311</td>
<td>Fast Cure, Inhibition Resistant Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>3 min</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 311UV</td>
<td>Fast Cure, Inhibition Resistant Gel with UV Tracer</td>
<td>1:1</td>
<td>Transparent / UV Blue</td>
<td>1,000 cps</td>
<td>3 min</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 312</td>
<td>Designed to Accommodate Additional Filler Loading</td>
<td>10:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>7 hours</td>
<td>3 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 313</td>
<td>Two Mix Ratios for Different Hardnesses</td>
<td>(10:1) / (20:1)</td>
<td>Transparent</td>
<td>300 cps</td>
<td>&gt; 7 days</td>
<td>50, Shore 00 / 5 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 314</td>
<td>PSA Tacky Material</td>
<td>10:1</td>
<td>Translucent</td>
<td>60,000 cps</td>
<td>2 hours</td>
<td>25, Shore 00</td>
<td>1.40</td>
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<tr>
<td>QGel 315</td>
<td>Extremely Long Work Life</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>&gt; 24 hours</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 317</td>
<td>Soft, Fast Room Temperature Cure</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>7 min</td>
<td>16 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 319</td>
<td>High Strength Gel</td>
<td>10:1</td>
<td>Transparent</td>
<td>2,000 cps</td>
<td>2 hours</td>
<td>70, Shore 00</td>
<td>1.40</td>
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<tr>
<td>QGel 321</td>
<td>Soft, Fast Curing Gel, Tinted for Contrast</td>
<td>1:1</td>
<td>Transparent Yellow</td>
<td>900 cps</td>
<td>7 min</td>
<td>12 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 322</td>
<td>Low Viscosity Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>755 cps</td>
<td>30 min</td>
<td>6 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 322Y</td>
<td>Low Viscosity Gel, Tinted Yellow</td>
<td>1:1</td>
<td>Transparent Yellow</td>
<td>730 cps</td>
<td>30 min</td>
<td>6 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 323Y</td>
<td>Medium Viscosity, Tinted Yellow</td>
<td>1:1</td>
<td>Transparent Yellow</td>
<td>5,000 cps</td>
<td>30 min</td>
<td>2.6 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 324</td>
<td>Excellent Self-Healing Properties</td>
<td>1:1</td>
<td>Transparent</td>
<td>3,000 cps</td>
<td>180 min</td>
<td>7 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 326</td>
<td>Long Gel Time</td>
<td>1:1</td>
<td>Transparent</td>
<td>875 cps</td>
<td>2.5 hours</td>
<td>12 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 327</td>
<td>Inhibition Resistant Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>30 min</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 329</td>
<td>General Purpose Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>950 cps</td>
<td>120 min</td>
<td>7 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 362</td>
<td>High Resiliency Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,000 cps</td>
<td>30 min</td>
<td>3 mm</td>
<td>1.40</td>
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<tr>
<td>QGel 363</td>
<td>Thixotropic when Mixed</td>
<td>1:1</td>
<td>Translucent</td>
<td>7,500 cps</td>
<td>20 min</td>
<td>7 mm</td>
<td>1.40</td>
</tr>
<tr>
<td>QGel 900</td>
<td>Low Temperature, High Refractive Index</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,550 cps</td>
<td>45 min</td>
<td>7 mm</td>
<td>1.43</td>
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<tr>
<td>QGel 910</td>
<td>High Refractive Index</td>
<td>1:1</td>
<td>Transparent</td>
<td>450 cps</td>
<td>120 min</td>
<td>4 mm</td>
<td>1.47</td>
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<tr>
<td>QGel 920</td>
<td>High Refractive Index</td>
<td>1:1</td>
<td>Transparent</td>
<td>1,550 cps</td>
<td>120 min</td>
<td>7 mm</td>
<td>1.49</td>
</tr>
<tr>
<td>TufGel 330</td>
<td>Firm Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>700 cps</td>
<td>70 min</td>
<td>45, Shore 00</td>
<td>1.41</td>
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<tr>
<td>TufGel 331</td>
<td>Blue, Firm Gel</td>
<td>1:1</td>
<td>Transparent Blue</td>
<td>700 cps</td>
<td>45 min</td>
<td>45, Shore 00</td>
<td>1.41</td>
</tr>
<tr>
<td>TufGel 332</td>
<td>Non- yellowing Catalyst, Firm Gel</td>
<td>1:1</td>
<td>Transparent</td>
<td>785 cps</td>
<td>5 hours</td>
<td>45, Shore 00</td>
<td>1.41</td>
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<tr>
<td>TufGel 333</td>
<td>UL 94 HB @ 1.7 and 3.0 (mm)</td>
<td>1:1</td>
<td>Transparent Blue</td>
<td>825 cps</td>
<td>30 min</td>
<td>45, Shore 00</td>
<td>1.41</td>
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<tr>
<td>TufGel 334</td>
<td>Fast Cure, Room Temperature Self-Bonding</td>
<td>1:1</td>
<td>Black</td>
<td>375 cps</td>
<td>6 min</td>
<td>50, Shore 00</td>
<td>1.41</td>
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<tr>
<td>TufGel 3350</td>
<td>Fast Cure, Room Temperature Self-Bonding</td>
<td>1:1</td>
<td>Transparent Yellow</td>
<td>440 cps</td>
<td>7 min</td>
<td>60, Shore 00</td>
<td>n/a</td>
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<tr>
<td>TufGel 3360</td>
<td>Fast Cure, Self-Bonding with UV Tracer</td>
<td>1:1</td>
<td>Light Blue</td>
<td>425 cps</td>
<td>7 min</td>
<td>65, Shore 00</td>
<td>n/a</td>
</tr>
</tbody>
</table>
To view CHT’s complete product portfolio or to request product samples, please visit www.silicone-experts.cht.com.

CHT is committed to providing you with superior service and the highest quality silicone products available. Our certification to the ISO 9001 standard ensures that we are always working towards continual improvement in every way.

We also have a stringent product testing protocol that uses ASTM standard test methods. Based on your specifications, products must meet certain criteria throughout production and prior to its release. A Certificate of Analysis will accompany every shipment you receive.

CALL US TOLL-FREE TODAY
Phone: 1-800-852-3147

QUALITY | SERVICE | INNOVATION
WE TAKE PRIDE IN SERVING YOU