SILICONE GEL SERIES

SOFT, Pliable, and Insulative
Silicone Technology
Benefits of CHT’s Silicone Technology

- Refractive index
- Useful temperature range
- Adhesion
- Cure speed

CHT’s team is available to consult with you on your unique application. Finding the right product for your application is not limited to our portfolio. Our expert technologists accept opportunities to either modify specifications in a current product or custom formulate a new one to meet your project’s exact requirements. CHT’s team is focused on building relationships and carefully listening to your requests, questions and feedback. With this approach, our team is then prepared to provide you with optimal silicone solutions that ultimately improve productivity and enhance performance.

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 twp-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 wide 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.

Benefits of CHT’s Silicone Technology

- Moisture protection
- Excellant 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)

AEROSPACE

Aerospace applications require demanding physical properties for all sealants or encapsulants. CHT’s Potting & encapsulating materials can perform at either extremely low or high temperatures.

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HEALTHCARE

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.

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ELECTRONICS

CHT’s silicone gels perform many key functions in electrical components. These soft, but resilient gels provide a protective barrier against moisture and environmental contaminants. They relieve mechanical and thermal stress that can often occur in high voltage devices. Additionally, specific properties such as adhesion, modulus, useful temperature range and conductivity can all be customized for your application.

Benefits of CHT’s Silicone Technology

- Low viscosity products allow for easy pouring and potting around complex parts
- Repairable and self-healing
- Grades available that contain a UV tracer for ease of visual identification
- Conductive technology for thermal management
- Modulus control technology is available to minimize CTE strain
- Excellant 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)
- Adhesion packages are available to obtain primerless adhesion to various substrates
- Withstand extreme temperatures from -55°C to 204°C (Customized temperature ranges are available from -113°C to 260°C)

SILICON GELS APPLICATIONS

Silicone gels by CHT provide a protective barrier against moisture and environmental contaminants. Materials range from optically clear to tightly 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

CHT’s product packaging options include:

- 275 Gallon Tote Kit
- 55 Gallon Drum Kit
- Five Gallon Pail Kit
- Half Gallon Pail Kit
- Pint Kit
- Customized packaging options available upon request

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
- Repairable
- 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 mounted 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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CONNECTORS

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)

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 cushioned external prosthetics placed on the actor or prop.

Benefits of CHT’s Silicone Technology

- Moisture protection
- Low viscosity for easy dispensing
- Wide range of penetrations
- Removable and reusable
- Remains tacky even when exposed to moisture

Benefits of CHT’s Silicone Technology

- Flame retardant, UL listed grades available (See our UL Rating File Number QMFZ2.E205830)
- Adhesion packages are available to obtain primerless adhesive to various substrates
- Withstand extreme temperatures from -55°C to 204°C (Customized temperature ranges are available from -113°C to 260°C)

LED DISPLAY

Silicone gels by CHT provide a protective barrier against moisture and environmental contaminants. Materials range from optically clear to tightly tinted grades for contrast enhancement. Benefits of CHT’s Silicone Technology

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<table>
<thead>
<tr>
<th><strong>Product</strong></th>
<th><strong>Description / Benefits</strong></th>
<th><strong>Mix Ratio</strong></th>
<th><strong>Color</strong></th>
<th><strong>Mixed Viscosity</strong></th>
<th><strong>Gel Time @ 25°C</strong></th>
<th><strong>Durometer (Shore 00) / Penetration (depth in mm)</strong></th>
<th><strong>Refractive Index</strong></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>
</tr>
<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>
</tr>
<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>
</tr>
<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>
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<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>2,050 cps</td>
<td>2 hours</td>
<td>70, Shore 00</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 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>
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<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 342</td>
<td>High Resiliency 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>
</tr>
<tr>
<td>QGel 343</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>
</tr>
<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>40, 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>
</tr>
<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>
</tr>
<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>5-8 min</td>
<td>50, Shore 00</td>
<td>1.41</td>
</tr>
<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>
</tr>
<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>
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.

We demonstrate distinctive flexibility, whether it’s modifying existing product specifications or developing a new product specifically designed for your unique application.

Our worldwide distributor network provides local inventory, which means reduced transit times and lower shipping costs for you.

Rely on our prompt, product development time.

Our team welcomes your feedback because we are always striving to make innovative improvements.

To view CHT’s complete product portfolio or to request product samples, please visit www.silicone-experts.cht.com.

CALL US TOLL-FREE TODAY
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