

Technical Data Sheet

QSiil 214 Transparent Liquid Silicone Elastomer

PRODUCT DESCRIPTION

QSiil 214 is a two-component, transparent and colorless liquid silicone, which will cure at room temperature or at elevated temperatures. The chemical composition provides hydrolytic stability and reversion resistance. This product is ideal for potting complex parts because it provides electrical insulation and shock resistance.

KEY FEATURES

- Medium viscosity
- Fast room temperature cure
- Low linear shrinkage
- Transparent
- Colorless
- Designed for superior adhesion with use of primer

TYPICAL PROPERTIES

| UNCATALYZED | | |
|------------------|-------------|-------------|
| TEST | QSiil 214 A | QSiil 214 B |
| Appearance | Transparent | Transparent |
| Viscosity | 6,000 cps | 6,000 cps |
| Specific Gravity | 1.00 | 1.00 |

| CATALYZED | |
|-------------------------|------------|
| MIX RATIO 1:1 by weight | |
| PROPERTY | RESULT |
| Gel Time at 25 °C * | 30 minutes |

* Gel time is defined as the time required for the material to become a solid or semi-solid.

| CURED PROPERTIES | |
|----------------------|-------------|
| 30 minutes at 150 °C | |
| PROPERTY | RESULT |
| Durometer | 40, Shore A |
| Tensile | 600 psi |
| Elongation | 100% |

| UL LISTED (FILE NUMBER QMFZ2.E205830) | |
|---------------------------------------|--------|
| UL-94 HB rated | 1.5 mm |

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| ADDITIONAL PROPERTIES | |
|--------------------------|-----------------|
| Thermal Conductivity | 0.18 W/m-K |
| Refractive Index | 1.40 |
| Useful Temperature Range | -55 °C – 204 °C |
| CTE (20 °C – 100 °C) | 308 ppm/°C |

CURE CHARACTERISTICS

QSil 214 A is reacted with QSil 214 B at a 1:1 ratio by weight. In order to achieve optimum performance, the same lot number of QSil 214 A and QSil 214 B should be used. The curing process begins as soon as parts A and B are mixed together. Elevated temperature can be utilized to accelerate and complete the cure.

MIXING

Combine one part of QSil 214 A with one part of QSil 214 B by weight into a clean, compatible container. The volume of the container should be 3 – 4 times the volume of the material to be mixed. Mix by hand or with mixing equipment until a homogeneous mixture is obtained. Accurate weighing of all components, on a suitable scale, is essential for optimal product performance when mixing by hand.

DE-AERATION

Air trapped during mixing should be removed by vacuum at 29 inches of mercury. During the process the material will expand, and intermittent evacuation may be required. Typically, after releasing the vacuum 2 – 3 times the mass will collapse on itself at which time the vacuum should be left on for an additional 2 – 4 minutes.

Machine mixed material does not normally need to be de-aired.

STORAGE AND SHELF LIFE

This product is best when used within 24 months from date of manufacture. See product label and/or CoA for specific "Use By Date".

Product should be stored in its original, unopened container in an environment that does not exceed 38 °C (100 °F).

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case, the properties required for the intended use should be checked for quality assurance reasons.

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DISCLAIMER

The technical data listed is provided for reference only and is not intended as product specifications. CHT USA's team accepts opportunities to either modify specifications in a current product or custom formulate a new one to meet your requirements. For sales and technical assistance, please contact us at: **(804) 271-9010** or **1-800-852-3147**.

Please be sure to visit our website daily for our complete product portfolio, new product introductions and more:

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