Technical Data Sheet



QSil 210 10 Shore A, Addition Cure Elastomer

PRODUCT DESCRIPTION

QSil 210 is a two-component, room temperature, addition cure, silicone material. The cured rubber is very soft, has excellent mechanical properties, very low fluid bleed and good shelf life stability. This material is an outstanding choice for casting soft, durable skin-like shapes and applications where a low durometer, translucent material is required.

KEY FEATURES

- Low viscosity
- High elongation (> 800%)
- Excellent retention of additional fluid
- Fast de-mold time
- Translucent and pigmentable

MAIN APPLICATIONS

- Special effects
- Skin replication
- Applications that require pigmentation and high elongation

TYPICAL PROPERTIES

| UNCATALYZED | | | |
|------------------|-------------|-------------|--|
| TEST | QSil 210 A | QSil 210 B | |
| Appearance | Translucent | Transparent | |
| Viscosity | 70,000 cps | 2,000 cps | |
| Specific Gravity | 1.10 | 1.00 | |

| CATALYZED | | |
|--------------------------|-------------|--|
| MIX RATIO 10:1 by weight | | |
| PROPERTY | RESULT | |
| Catalyzed color | Translucent | |
| Viscosity | 38,000 cps | |
| Gel Time at 25°C * | 60 minutes | |
| Tack free time | 8 hours | |
| Demold time | 24 hours | |

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

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| CURED PROPERTIES | | |
|--------------------------|----------------|--|
| 3 days at 25°C | | |
| PROPERTY | RESULT | |
| Durometer, Shore A | 10 | |
| Tensile | 330 psi | |
| Elongation | 800 % | |
| Tear | 35 ppi | |
| Linear shrinkage | < 0.1 % | |
| Useful temperature range | - 55°C – 204°C | |

CURE CHARACTERISTICS

QSil 210 A is catalyzed with QSil 210 B at a 10:1 ratio by weight. In order to achieve optimum performance the same lot number of QSil 210 A and QSil 210 B should be used.

The curing process begins as soon as the catalyst is mixed with the base. The material will cure as described in the data above under normal temperature (25°C). Because this system is sensitive to heat cure speed will increase with increased temperature. In addition, if the product is to be used with aggressive resins such as high styrene polyester resin, it is recommended that the rubber be allowed to cure for 48 hours.

MIXING

Combine ten parts of QSil 210 A with one part of QSil 210 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

If QSil 210 A and QSil 210 B are stored in their original unopened containers, in an environment that does not exceed 38°C (100°F) then QSi will warranty the material for a period of 12 months from the date of shipment.

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DISCLAIMER

The technical data listed is provided for reference only and is not intended as product specifications. QSi has the capability to customize products as requested. For sales and technical assistance please contact customer service 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! www.quantumsilicones.com

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