TECHNICAL DATA SHEET



QM Skin 30 2 part moldmaking material

| Description | Property | Test Method | Value |
|--|--|--------------|-------------------------------|
| QM Skin 30 is a two-component, room temperature, condensation | Uncured Product | | |
| cure, silicone material. The cured rubber is very soft, has excellent mechanical properties and very low bleed in addition to | Cure Profile | | 3 days, 25°C, 50% humidity |
| good shelf-life stability. This material is an excellent choice for the molding of intricate patterns, skin molding and applications where | Cure Type | | Condensation |
| low durometer, translucent material is required Key Features | De-mould Time / Full Cure at 23°C/73°F | | 16 - 24 hrs |
| Low viscosity | Density A | BS ISO 2781 | 1.12 |
| High elongation (>1000%) | Density B | BS ISO 2781 | 1.00 |
| Excellent retention of additional fluid | Mix Ratio By Weight | | 10:1 |
| Fast de-mold time, translucent and pigmentable | Rheology | | Liquid |
| Key Applications | Viscosity A | Brookfield | 50000 cP |
| Complies with FDA indirect food contact regulation CFR 177.2600, when used with QM Cat Clear FG. Refer to QM Cat | Viscosity B | Brookfield | 100 cP |
| Clear FG data sheet for typical properties. | Viscosity Mixed | Brookfield | 30000 cP |
| Application | Cured Product | | |
| Special effects, skin replication, pigmentable | Color | | Translucent |
| Use and Cure Information | Density | BS ISO 2781 | 1.12 g/cm3 |
| CURE CHARACTERISTICS | Elongation at Break | ISO 37 | 1000 % |
| The standard catalyst for QM Skin 30 is QM Cat Skin 30 | - | ASTM D 2240- | |
| catalyzed at a 10:1 ratio (base:catalyst) by weight. Faster cure | Hardness Shore A | 95 | 5 |
| can be obtained using DBT or a higher level of QM Cat Skin 30. However, rapid cure of condensation cure moldmaking materials | Linear Shrinkage (%) | | <0.3 % |
| can often result in a small sacrifice of physical properties or an | Tear Resistance (N/mm) | BS ISO 34-1 | 16.5 N/mm / 94 ppi |
| increase in hardness. The curing process begins as soon as the | Tensile Strength | ISO 37 | 2.41 N/mm2 / 349 psi |
| catalyst is mixed with the base. The material will cure as | - | | |
| described in the data above under normal temperature (25 °C) and humidity conditions (50% RH). Because this system is | Storage | | |
| sensitive to heat and humidity, a change in cure speed may be | Max Storage Temperature | | 38 °C / 100 °F |
| observed if one or both of these variables are altered. A large | Shelf Life | | 12 mths |

difference in temperature (+/- 5° C) or humidity (> $60\% - 70^{\circ}$) may alter the cure profile of the material. In addition, if the product is to be used with aggressive resins such as high styrene polyester resins, it is recommended that the rubber be allowed to cure for 48 hours.

MIXING

CHT recommends that the catalyzed material be tested on a small area of the mold prior to use. QM Skin 30 should be thoroughly mixed with QM Cat Skin 30 using a 10:1 ratio (base:catalyst) by weight. Shake the catalyst well before use. Material should be mixed in a clean, compatible metal or plastic container. The volume of the container should be 3 – 4 times the volume of the material to be mixed. This allows for expansion of the siloxane material during de-aeration. Mix thoroughly by hand or with mixing equipment while minimizing air entrapment until a homogeneous mixture is obtained. This will occur when the material takes on a uniform color with no visible striations. 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.

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| UNCATALYZED | | | | |
|------------------|-------------|----------------|--|--|
| PROPERTY | QM Skin 30 | QM Cat Skin 30 | | |
| Color | Translucent | Translucent | | |
| Viscosity | 50,000 cps | 100 cps | | |
| Specific Gravity | 1.12 | 1.00 | | |

| CATALYZED MIX RATIO 10:1 by weight | | |
|---------------------------------------|----------------|--|
| PROPERTY | QM Cat Skin 30 | |
| Color | Translucent | |
| Viscosity | 30,000 cps | |
| Specific Gravity | 1.12 | |
| Work Life at 25 °C * | 42 minutes | |
| Tack-Free Time | 8 – 12 hours | |
| Demold Time | 16 – 24 hours | |

* Work life is defined as the amount of time required for the material to double in catalyzed viscosity.

| CURED PROPERTIES | | | |
|--------------------|---------|--|--|
| 3 DAYS at 25 °C | | | |
| Durometer, Shore A | 5 | | |
| Tensile Strength | 350 psi | | |
| Elongation | 1,000% | | |
| Tear B | 95 ppi | | |
| Linear Shrinkage | < 0.30% | | |

Storage

See product label and/or CoA for specific "Use By Date". Product should be stored in its original, unopened container. 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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