



# Technical Data Sheet

## QM 100

30 Shore A, Condensation Cure Moldmaking Material

### PRODUCT DESCRIPTION

QM 100 is a two-component, room temperature, condensation cure, silicone material. The cured rubber is a crystal clear material designed specifically for the special effects market. The materials' clarity allows for its use as fake ice, fake glass or any application where clarity is required.

### KEY FEATURES

- Low viscosity
- Clarity
- Fast demold time
- Clear, pigmentable

### MAIN APPLICATIONS

- Special effects
- Fake glass
- Fake ice
- Applications where pigmentation is required

### TYPICAL PROPERTIES

UNCATALYZED		
TEST	QM 100	QM Cat 100
Appearance	Clear	Clear
Viscosity	600 cps	20 cps
Specific Gravity	0.97	0.92

CATALYZED	
MIX RATIO 10:1 by weight	
PROPERTY	RESULT
Catalyzed color	Clear
Snap Time at 25 °C *	> 35 minutes
Demold time	4 - 6 hours

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

CURED PROPERTIES	
3 DAYS @ 25°C	
Durometer, Shore A	30
Linear Shrinkage	< 0.3 %



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### **CURE CHARACTERISTICS**

QM100 should be catalyzed with QM Cat 100 at a ratio of 10:1 by weight. Faster cure can be obtained using DBT or a higher level of QM Cat 100. However, rapid cure of condensation cure moldmaking rubber often results in a small sacrifice of physical properties or an increase in hardness.

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) and humidity conditions (50% RH). Because this system is sensitive to heat and humidity, a change in cure speed may be observed if one or both of these variables are altered. A large difference in temperature (+/- 5°C) or humidity (> 60% – 70%) 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**

QM 100 should be thoroughly mixed with QM Cat 100. 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. The material will take on a uniform clear appearance.

### **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 minute.

### **STORAGE AND SHELF LIFE**

If QM 100 and QM Cat 100 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 6 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**.

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