



## Technical Data Sheet

### QM Cat SR 2

Quantum Silicones' Condensation Cure  
Styrene Resistant Moldmaking Catalyst

#### Product Description

Quantum Silicones' QM Cat SR 2 is the standard catalyst for the QM 100 series when casting polyester resins. The catalyst has excellent mechanical properties and good shelf-life stability. This is the styrene resistant version of our standard catalysts and this technology is available with QM Cat Blue, QM Cat Purple and QM Cat Red.

#### Key Features

- Good work life
- Excellent physical properties
- Fast demold time
- Excellent styrene resistance

#### Main Applications

- Molds for polyester resin castings
- Molds where styrene resistance is required

#### Typical Properties

UNCATALYZED PROPERTIES			
CATALYST	QM CAT BLUE SR2	QM CAT PURPLE SR2	QM CAT RED 3 SR2
Color	Blue	Purple	Red
Viscosity, cps	100	100	100
Specific Gravity, g/cm <sup>2</sup>	1.03	1.00	0.95
Mix Ratio	10:1 by weight		
CATALYZED PROPERTIES-QM CAT SR2			
PROPERTY	QM CAT BLUE SR2	QM CAT PURPLE SR2	QM CAT RED 3 SR2
Catalyzed Color	Light Blue	Light Purple	Light Red
Pot Life <sup>(1)</sup> (minutes)	~45 to 90	~45	~15
Tack-Free Time	6 to 8 hours	4 to 6 hours	45 to 60 minutes
Demold Time	16 to 24 hours	12 to 16 hours	4 to 6 hours

(2)Pot Life is defined as the time at which the catalyzed viscosity has doubled.

## **Final Properties**

See individual data sheets for QM 100 series

## **Cure Characteristics**

The curing process begins as soon as the catalyst is mixed with the base. Under normal temperature (25C) and humidity (50% RH) conditions, the material will cure as described in the data above. Because this system is sensitive to heat and humidity, a change in cure speed may be seen if one or both variables are altered. Any large difference in temperature (+/-5C) or humidity (>60-70%) may change the cure profile of the material. 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.

\*QM 100, QM 135 and QM 140 each require their own specific catalyst. Please see individual data sheets for details.

## **Mixing and De-aeration**

The following procedure should be followed for obtaining optimal performance from the QM 100 series.

Charge 100 parts, **by weight**, of the QM 100 series base and 10 parts, **by weight**, of QM Cat SR 2 into a clean, compatible metal or plastic container. Shake the catalyst well before use. The volume of the container should be 3 to 4 times the volume of the material to be mixed. This allows for expansion of the siloxane material as it de-gasses.

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. Once mixing is complete it is recommended that the material be de-aired 2 to 3 times by intermittent evacuation for a few minutes to minimize any imperfections due to bubbles in the cured material. Typically after releasing the vacuum 2 to 3 times the mass will collapse on itself at which time the vacuum should be left on only 2 to 4 minutes longer. For best results, machine mixing is recommended.

## **Shelf-life and Storage**

The QM 100 series base and QM Cat SR 2 should be stored in their original, sealed containers in an environment that does not exceed 90° F. Under these conditions the expected shelf-life of the material is 6 months.

**Not for Product Specification**

The technical data listed herein is provided as a reference only and **is not** intended as sales specifications. For sales and technical assistance or for product recommendations, please call 1-800-852-3147.

Quantum Silicones  
8021 Reycan Rd  
Richmond, VA 23237  
Phone (804) 271-9010 Fax (804) 271-9055  
Customer Service (800)852-3147  
[www.quantumsilicones.com](http://www.quantumsilicones.com)