



Technical Data Sheet

QM Cat Clear SP

Condensation Cure Moldmaking Catalyst for QM 130T

PRODUCT DESCRIPTION

QM Cat Clear SP is a fast curing, two-component, room temperature, condensation cure catalyst for QM 130T. The cured rubber has excellent mechanical properties and good shelf-life stability. QM Cat Clear is available for applications requiring a slower cure. Thixotropic and styrene resistant specialty catalysts are also available.

KEY FEATURES

- Excellent physical properties and dimensional stability
- Fast demold time

MAIN APPLICATIONS

- Vacuum bags
- Molds for technical articles and prototypes
- Spray applications

TYPICAL PROPERTIES

UNCATALYZED	
PROPERTY	QM Cat Clear SP
Color	Translucent
Viscosity	150 cps
Specific Gravity	1.00

CATALYZED	
MIX RATIO 10:1 by weight	
PROPERTY	QM Cat Clear SP
Color	Translucent
Work life at 25°C *	< 5 minutes
Tack-free time	1 - 2 hours
Demold time	2 - 4 hours

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



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CURED PROPERTIES

See individual data sheets for QM 130T.

CURE CHARACTERISTICS

QM Cat Clear SP is catalyzed at a 10:1 ratio (base:catalyst) by weight with QM 130T. QM Cat Clear is available for those needing a longer working time or those hand mixing larger quantities of QM 130T. Faster cure can be obtained by using DBT or a higher level of QM Cat Clear SP. 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

QSi recommends that the catalyzed material be tested on a small area of the mold prior to use.

QM Cat Clear SP series of products should be thoroughly mixed with QM 130T 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. Machine mixing is recommended for best results.

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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STORAGE AND SHELF LIFE

If QM Cat Clear is 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.

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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