



Technical Data Sheet

QM Moldmaster Red

Quantum Silicones' Condensation Fast Cure
Moldmaking Catalyst for QM 2125 & QM 2128

Product Description

Quantum Silicones' QM Moldmaster Red is a two component, room temperature condensation fast cure catalyst for QM 2125 and QM 2128. QM Moldmaster Red is the fast catalyst for the QM Moldmaster series and is a good choice for applications that require a faster curing system. The cured rubber has excellent mechanical properties and good shelf-life stability. For applications that require a longer curing time, QM Moldmaster Purple is available.

Key Features

- Quick tack-free time
- Fast demold time
- Minimal impact on cured physical properties

Main Applications

- Molds for large and small statues
- Molds for polyester, polyurethane and epoxy resin castings
- Molds for technical articles and prototypes
- Molds for furniture and picture frame replication
- Molds for GFRC pre-cast

Typical Properties

UNCURED PROPERTIES	
Appearance	Red
Viscosity, cps	<150
Specific Gravity, g/cm ²	1.00
Mix Ratio	10:1 by weight

CATALYZED PROPERTIES-QM MOLDMASTER RED	
Catalyzed Color	Light Red
Pot Life ⁽¹⁾ (minutes)	~30 minutes
Tack-Free Time(hours)	~2 to 4 hours
Demold Time(hours)	~4 to 6 hours

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

Final Properties

See individual data sheets for QM 2125 and QM 2128.

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.

The fast catalyst for the QM Moldmaster series is QM Moldmaster Red at a 10% level, **by weight**. Faster cure can be obtained using DBT or a higher level of QM Moldmaster Red. However, rapid cure of condensation cure moldmaking rubber often results in a small sacrifice of physical properties or an increase in hardness. The standard catalyst for the QM Moldmaster series is QM Moldmaster Purple at 10% level **by weight**. QM Moldmaster Purple is recommended for those needing a longer working time or those hand mixing larger quantities.

Mixing and De-aeration

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

Charge 100 parts, **by weight**, of the QM Moldmaster series base and 10 parts, **by weight**, of QM Moldmaster Red 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 Moldmaster series base and QM Moldmaster Red 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.

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