



## Technical Data Sheet

### QM 2128

*Quantum Silicones' 28 Durometer Condensation Cure  
Moldmaking Material*

#### **Product Description**

Quantum Silicones' QM 2128 is a two component, room temperature condensation cure silicone material. The cured rubber has excellent mechanical properties and good shelf-life stability. This material is an excellent choice for the molding of intricate patterns, skin molding and applications where dimensional stability, higher durometer and extremely tough rubber are required.

#### **Key Features**

- Low specific gravity
- High tear strength
- Low viscosity
- Long work-life
- Fast demold time
- Excellent dimensional stability

#### **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**

UNCATALYZED PROPERTIES		
Mix Ratio	10:1 by weight	
<b>BASE</b>	<b>QM 2128</b>	
Base Appearance	Beige	
Base Viscosity, cps	50,000	
<b>CATALYST</b>	<b>Moldmaster Purple</b>	<b>Moldmaster Red</b>
Catalyst Appearance	Purple	Red
Catalyst Viscosity, cps	<150	<150

## **Typical Properties Continued**

<b>CATALYZED PROPERTIES-QM 2128</b>		
<b>PROPERTY</b>	<b>Moldmaster Purple</b>	<b>Moldmaster Red</b>
Catalyzed Color	Dark Purple	Light Red
Catalyzed Viscosity, cps	35,000	35,000
Specific Gravity, g/cm <sup>2</sup>	1.13	1.13
Pot Life <sup>(1)</sup> (minutes)	~60 minutes	~30 minutes
Tack-Free Time	~4-6 hours	~2-4 hours
Demold Time	~8-10 hours	~4-6 hours

<b>TYPICAL CURED PROPERTIES (3 DAYS @ 25C)</b>	
Durometer, Shore A	26 to 30
Tensile Strength, psi	700
Elongation, %	500
Tear B, ppi	180
Linear Shrinkage, %	<0.25

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

## **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 of these 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 resins, it is recommended that the rubber be allowed to cure for 48 hours.

The standard catalyst for QM 2128 is QM Moldmaster Purple at a 10% level, **by weight**. Faster cure can be obtained by using DBT, an increased level of QM Moldmaster Purple or 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.

## **Mixing and De-aeration**

The following procedure should be followed for obtaining optimal performance from QM 2128.

Charge 100 parts, **by weight**, of QM 2128 and 10 parts, **by weight**, of QM Moldmaster Purple into a clean, compatible metal or plastic container. Shake the catalyst well before use. 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 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 2-3 times by intermittent evacuation for a few

minutes to minimize any imperfections due to bubbles in the cured material. Typically after releasing the vacuum 2-3 times the mass will collapse on itself at which time the vacuum should be left on only 2-4 minutes longer.

### **Shelf-life and Storage**

QM 2128 and QM Moldmaster purple should be stored in their original, sealed containers in an environment that does not exceed 90F. 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)