Technical Data Sheet

QM 260

Quantum Silicones' 60 Durometer Addition Cure Moldmaking Material

Product Description

Quantum Silicones' QM 260 is a two component, room temperature addition cure silicone material. The cured rubber has excellent mechanical properties and good shelf-life stability. This material is a good choice for the molding of furniture, picture frames and architectural materials. In addition, this material is exceptionally good where high durometer and dimensional stability are required.

Key Features

- High Durometer
- Casting resin resistance
- Fast demold time
- Excellent dimensional stability

Main Applications

- Molds for architectural replication
- Molds for polyester, epoxy resin casting, and rigid or foam polyurethane molds for technical articles and prototypes
- Molds for furniture and picture frame replication

Typical Properties

UNCATALYZED PROPERTIES	
Mix Ratio	10:1 **by weight**
BASE	**QM 260A**
Base Appearance	Beige
Base Viscosity, cps	130,000
Base Specific Gravity, g/cm^2	1.34
CATALYST	**QM 260B**
Catalyst Appearance	Blue or Clear
Catalyst Viscosity, cps	900
Catalyst Specific Gravity, g/cm^2	0.98

Typical Properties Continued

CATALYZED PROPERTIES-QM 260	
PROPERTY	**QM 260**
Catalyzed Color	Light Blue or Beige
Catalyzed Viscosity, cps	70,000
Pot Life[(1)](minutes)	60 minutes
Demold Time(hours)	8 to 12 hours

TYPICAL CURED PROPERTIES (3 DAYS @ 25C)	
Durometer, Shore A	60
Tensile Strength, psi	>750
Elongation, %	~190
Tear B, ppi	>85
Linear Shrinkage, %	<0.1
Useful Temperature Range	-60C to 204C

(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. For best results, QM 260A and QM 260B components of the **same lot number** should be used.

Mixing and De-aeration

The following procedure should be followed for obtaining optimal performance from the QM 260.

Charge 100 parts, **by weight**, of QM 260A and 10 parts, **by weight**, of QM 260B 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.

* Machine mixed material does not normally need to be de-aired.

Shelf-life and Storage

QM 260A and QM 260B 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 12 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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