



Technical Data Sheet

QM Skin 30

*Quantum Silicones' 30 Durometer (Shore 00) Condensation Cure
Moldmaking Material*

Product Description

Quantum Silicones' QM Skin 30 is a two component, room temperature condensation cure silicone material. The cured rubber is very soft, has excellent mechanical properties, very low fluid bleed and good shelf-life stability. This material is an outstanding choice for moldmaking of intricate patterns, skin molding and applications where low durometer, translucent material is required.

Key Features

- Low viscosity
- High elongation (> 1000%)
- Excellent retention of additional fluid
- Fast demold time
- Clear and pigmentable

Main Application

- Special Effects
- Skin replication
- Applications where pigmentation is required

Typical Properties

UNCATALYZED PROPERTIES	
Mix Ratio	10:1 by weight
BASE	QM SKIN 30
Base Appearance	Translucent
Base Viscosity, cps	~50,000cps
Base Specific Gravity, g/cm ²	1.12
CATALYST	QM CAT SKIN 30
Catalyst Appearance	Translucent
Catalyst Viscosity, cps	~100
Catalyst Specific Gravity, g/cm ²	1.00

Typical Properties Continued

CATALYZED PROPERTIES-QM SKIN 30	
PROPERTY	QM CAT SKIN 30
Catalyzed Color	Translucent
Catalyzed Viscosity, cps	30,000cps
Pot Life ⁽¹⁾ (minutes)	30 to 45 minutes
Tack-Free Time (hours)	8 to 12 hours
Demold Time (hours)	16 to 24 hours

TYPICAL CURED PROPERTIES (3 DAYS @ 25C)	
Durometer, Shore 00	30 to 50
Tensile Strength, psi	~300
Elongation, %	~1000
Tear B, ppi	~100
Linear Shrinkage, inches	<0.3

(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 resin, it is recommended that the rubber be allowed to cure for 48 hours.

The catalyst for QM Skin 30 is QM Cat Skin 30 at a 10% level **by weight**. Faster cure can be obtained using DBT or a higher level of QM Cat Skin 30. 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 the QM Skin 30.

Charge 100 parts, **by weight**, of QM Skin 30 and 10 parts, **by weight**, of QM Cat Skin 30 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 Skin 30 and QM Cat Skin 30 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.

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