



Technical Data Sheet

QM 130T

*Quantum Silicones' 30 Durometer Translucent
Condensation Cure Moldmaking Material*

Product Description

Quantum Silicones' QM130T is a two component translucent, room temperature condensation cure silicone material. The material has been specifically designed for vacuum bag applications. When catalyzed with QM Cat Clear Thixo 2 the resulting material is extremely thixotropic. QM Cat 130T is also available for non-thixotropic, flowable, applications. The cured rubber has excellent properties and good shelf life stability.

Key Features

- High tear strength
- High thixotrophy (if desired)
- Fast demold time
- Excellent dimensional stability

Main Applications

- Molds for polyester, polyurethane and epoxy resin castings
- Designed specifically for vacuum bag applications

Typical Properties

UNCATALYZED PROPERTIES		
Base Appearance	Translucent	
Base Viscosity, cps	50,000	
Mix Ratio	10:1 by weight	
CATALYST ⁽¹⁾	QM CAT CLEAR THIXO 2	QM CAT Clear
Color	Translucent	Translucent
Viscosity, cps	900	100
Specific Gravity, g/cm ²	1.03	1.00

Typical Properties Continued

CATALYZED PROPERTIES-QM 130T		
PROPERTY	QM CAT CLEAR THIXO 2	QM CAT CLEAR
Catalyzed Color	Translucent	Translucent
Catalyzed Viscosity, cps	Thixotropic, easily workable	Flowable
Specific Gravity g/cm ²	1.13	1.13
Work Time, minutes	20 to 30 minutes	20 minutes
Tack-Free Time, hours	3 to 5 hours	4 to 6 hours
Demold Time, hours	8 to 12 hours	12 to 16 hours

TYPICAL CURED PROPERTIES (3 DAYS @ 25C)		
PROPERTY	QM CAT CLEAR THIXO 2	QM CAT CLEAR
Durometer, Shore A	28 to 32	28 to 32
Tensile Strength, psi	~500	>500
Elongation, %	~350	>450
Tear, ppi	>70	>140
Linear Shrinkage, %	<0.3	<0.3
Useful Temperature Range	-50 to 150C	-50 to 150C

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 QM130T is QM Cat Clear or QM Cat Clear Thixo at a 10% level **by weight**. Faster cure can be obtained using DBT, STO or a higher level of QM Cat Clear Thixo 2 or QM Cat Clear. 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 QM130T.

Charge 100 parts, **by weight**, of QM130T and 10 parts, **by weight**, of the chosen catalyst 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. 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

QM130T, QM Cat Clear Thixo 2 and QM Cat Clear 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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