## **TECHNICAL DATA SHEET**



## QM 130T 2 part moldmaking material

Description	Property	Test Method	Value
•		rest method	value
QM 130T is a two-component, translucent, room temperature, condensation cure, silicone material. When catalyzed with QM	Uncured Product		2 days 05°C 50%
Cat Clear Thixo 2 the resulting material is extremely thixotropic.	Cure Profile		3 days, 25°C, 50% humidity
QM 130T is also available for non-thixotropic, flowable	Cure Type		Condensation
applications when catalyzed with QM Cat Clear. The cured rubber has excellent properties and good shelf life stability.	De-mould Time / Full Cure at		
Key Features	23°C/73°F		12 - 16 hrs
High tear strength	Density A	BS ISO 2781	1.12
<ul> <li>High thixotropy (if desired)</li> </ul>	Mix Ratio By Weight		10:1
Fast de-mold time	Rheology		Paste
Excellent dimensional stability     Application	Tack Free Time / Skin Formation at 23°C/73°F		3 - 5 hr
Vacuum bag applications, polyester, PU and epoxy	Viscosity A	Brookfield	50000 cP
Use and Cure Information			
CURE CHARACTERISTICS	Cured Product		<b>_</b>
The standard catalyst for the QM 130T is QM Cat Clear or QM	Color		Translucent
Cat Clear Thixo 2 catalyzed 10:1(base:catalyst) by weight. Faster	Density	BS ISO 2781	1.11 g/cm3
cure can be obtained using DBT, STO or a higher level of QM Cat Clear or QM Cat Clear Thixo 2. However, rapid cure of	Elongation at Break	ISO 37	350 - 450 %
condensation cure moldmaking rubber often results in a small	Hardness Shore A	ASTM D 2240- 95	30
sacrifice of physical properties or an increase in hardness. The curing process begins as soon as the catalyst is mixed with the	Linear Shrinkage (%)		<0.3 %
base. The material will cure as described in the data above under	Max Working Temp		150 °C / 302 °F
normal temperature (25°C) and humidity conditions (50% RH).	Min Working Temp		-50 °C / -58 °F
Because this system is sensitive to heat and humidity, a change	Tear Resistance (N/mm)	BS ISO 34-1	12.2 N/mm / 70 ppi
in cure speed may be observed if one or both of these variables are altered. A large difference in temperature (+/- 5°C) or	Tensile Strength	ISO 37	3.45 N/mm2 / 500 psi
humidity (> $60\% - 70\%$ ) may alter the cure profile of the material.	•		
In addition, if the product is to be used with aggressive resins	Storage		
such as high styrene polyester resins, it is recommended that the	Max Storage Temperature		38 °C / 100 °F
rubber be allowed to cure for 48 hours.	Shelf Life		12 mths
MIXING			

All condensation cure catalysts should be thoroughly mixed prior to catalyzation. CHT recommends that the catalyzed material be tested on a small area of the mold prior to use. QM 130T should be thoroughly mixed with the chosen catalyst using a 10:1 ratio (base:catalyst) by weight. Shake the catalyst well before use. Material should be mixed in a clean, compatible metal or plastic container. 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 during de-aeration. Mix thoroughly by hand or with mixing equipment while minimizing air entrapment until a homogeneous mixture is obtained. DE-AERATION

Air trapped during mixing should be removed by vacuum at 29 inches of mercury. During the process, the material will expand, and intermittent evacuation may be required. Typically, after releasing the vacuum 2 - 3 times, the mass will collapse on itself at which time the vacuum should be left on for an additional 2 - 4 minutes.

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UNCATALYZED				
TEST	QM 130T	QM CAT CLEAR	QM CAT CLEAR THIXO 2	
Color	Translucent	Translucent	Translucent	
Viscosity	50,000 cps	100 cps	900 cps	
Specific Gravity	1.12	1.00	1.03	

CATALYZED MIX RATIO 10:1 by weight				
Color	Translucent	Translucent		
Catalyzed viscosity	Flowable	Thixotropic, easily workable		
Specific Gravity	1.11	1.11		
Work life at 25°C *	20 minutes	20 minutes		
Tack-free time	4 - 6 hours	3 - 5 hours		
Demold time	12 - 16 hours	8 - 12 hours		

\* Work life is defined as the amount of time required for the material to double in catalyzed viscosity.

CURED PROPERTIED					
3 DAYS @ 25°C					
PROPERTY	QM CAT CLEAR	QM CAT CLEAR THIXO 2			
Durometer, Shore A	30	30			
Tensile Strength	500 psi	500 psi			
Elongation	450%	350%			
Tear B	140 ppi	70 ppi			
Linear Shrinkage	< 0.3%	< 0.3%			
Useful temperature	- 50 – 150°C	- 50 - 150°C			

## Storage

See product label and/or CoA for specific "Use By Date". Product should be stored in its original, unopened container. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case, the properties required for the intended use should be checked for quality assurance reasons.

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