

MM940

Characterization

MM940 is a two-component room temperature condensation curing silicone compound. The cured product is an exceptionally flexible rubber with very high mechanical properties and good shelf life stability. It is suitable for mould making of intricate patterns with extremely good pick up of fine details. Softer grades are better suited for use where there are deep undercuts.

Key Features:

- High tear strength
- High dimensional stability
- Fine detail pick up
- Easily degassed

Technical Data

	MM940 Component A	MM CAT Component B		
Colour	White	-		
Viscosity	37,000	200	mPa·s	Brookfield HBTD
	Mixture			
Cure Type	Condensation			
FDA	No			CFR (21) 177.2600
Mixing ratio	20 : 1		according to weight	
Mixed Viscosity	37,000		mPa·s	Brookfield HBTD
Pot Life	70		Min	
De-Mould Time	6.5		h	
Cured product	After 7 days at 23°C +/-2°C and 50% +/-5% humidity			
CTE Linear	271		ppm/°C	
CTE Volumetric	813		ppm/°C	
Duro Shore A	37			ASTM D 2240-95
Working Temp.	-50 to 200		°C	AFS-1540B
Tensile	4.86		MPa	ISO 37
Elongation	349		%	ISO 37
Modulus Youngs	1.34		MPa	
Modulus @ 100% Strain	1.27		MPa	
Tear	25		kN/m	ISO 34-1
Linear Shrinkage	0.4		%	
SG	1.12			BS ISO 2781

Storability / Storage

When proper storage approx. 6 months if stored properly max. at 40°C and protected from frost and dry in closed original containers.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Application Technique

Processing

The curing process starts as soon as the catalyst is added. Under normal conditions of temperature and humidity typical curing characteristics are as described in the table above. If the product is to be used in contact with aggressive chemicals, such as high styrene polyester resins or epoxies, it is recommended that the rubber be allowed to cure for 48 hours before use.

How to use

Charge 100 parts by weight of Base Rubber and 5 parts by weight of catalyst into a suitable plastic or metal container. The volume of the mixing vessel should be sufficient to allow for rapid expansion which take place during the initial degasses of the catalysed rubber. Mix thoroughly avoiding excessive air entrapment but using the colour contrast to achieve homogeneity. Stop the mixer and scrape the vessel walls a few times. To prevent imperfections due to bubbles the cured rubber, it is advisable to de-aerate the liquid rubber by using intermittent evacuation for a few minutes. Normally after releasing the vacuum 2 or 3 times, the mass collapses naturally and thereafter degassing should continue for only a few minutes.

Vertical Application

This product can be used to make mouldings on vertical surfaces by employing Thixotroping Agent, MMTA2. A typical formulation for good thixotropy and approximately the same working life on the normal rubber is shown below:

- MM900 series 100 parts by weight
- Catalyst 5 parts by weight
- MMTA2 2-3 parts by weight

Mix the components in the above order. When using the fast cure catalyst, if degassing is required it must be done quickly after catalysation and before the addition of the Thixotroping Agent MMTA2. Pot life and rate of cure is slightly shorter in the presence to MMTA2.

Standard catalyst for use with the MM900 series of rubber

Code	Ratio	Colour	Pot life [min.]	De-Mould [h]
MM CAT B5NT	20:1	Blue	>45	<24
MM CAT R5NT	20:1	Red	15 – 45	<3
MM CAT L6WNT	20:1	Clear	>45	<24
MM CAT L8W	20:1	Clear	>120	<24

MM CAT W Booster is available to speed up standard cure catalysts

It is absolutely important to check the compatibility in preliminary tests if unknown substrates are used.

Safety

Please observe our EC safety data sheets and the safety remarks on our container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the EC safety data sheet of the applied product at hand since it provides you with useful instructions for the safe use and disposal of the product as well as for actions to be taken in case of accidents.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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