

MM922 (RTV922) High Tear Condensation Cure 2-Part Moulding Rubber

Introduction

MM922 is a new, high strength, translucent condensation cure silicone rubber. It has been specially developed for the detailed reproduction of master parts, particularly artistic models requiring special pigmentation and good flexibility.

It is an ideal moulding rubber for the manufacture of artistic mouldings using plaster, natural or synthetic cement, filled polyester, cellular polyurethane etc

Key Features

- **High tear strength**
- **High detail pick up**
- **Easy degassing**
- **Good dimensional stability**

Use and Cure Information

The curing process starts as soon as the catalyst is added. Under normal conditions of temperature and humidity, typical curing characteristics are described below.

How to Use

Weigh out the appropriate amount of A Part base rubber and add the B Part catalyst at a ratio of 20:1 (A to B) by weight. Pour into a suitable plastic or metal container. The volume of the mixing vessel should be sufficient to allow for rapid expansion which takes place during the initial degassing 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 in 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 after which degassing should continue for only a few minutes.

Vertical Application

MM922 can be used to make mouldings on vertical surfaces by employing Thixotroping Agent TA2. A typical formulation for good thixotropy and approximately the same working life of the normal rubber is shown below:-

ADD TA2 to the catalysed base 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 TA2. Pot life and rate of cure is slightly shorter in the presence of TA2.

Pigmentation

MM922 has been found to be very compatible with all inorganic and organic pigments, and with many oil soluble dyes. The use of such materials is familiar to those skilled in the art.

Property	Test Method	Value
----------	-------------	-------

Uncured Product

Colour:		Beige
Appearance:		Viscous Liquid
Viscosity:	Brookfield	25000 mPa.s
Catalysed viscosity	Brookfield	19000mPa.s
Pot Life:		0 minutes *
De-mould time		8 hours *
* measured at 23+/-2°C and 65% relative humidity using standard catalyst.		

Cured Elastomer

(after 7 days cure at 23+/-2°C and 65% relative humidity)

Tensile Strength:	BS903 Part A2	3.64 MPa
Elongation at Break:	BS903 Part A2	497 %
Youngs Modulus:		1.5MPa
Modulus at 100% Strain:	BS903 Part A2	0.93MPa
Tear Strength:	BS903 Part A3	26.24 kN/m
Hardness:	ASTM D 2240-95	° Shore 00
Hardness:	ASTM D 2240-95	22° Shore A
Specific Gravity:	BS 903 Part A1	1.26
Linear Shrinkage:		0.40 %
Coefficient of Thermal Expansion:		
Volumetric		738 ppm / °C
Linear		246 ppm / °C
Min. Service Temperature:		-50°C
Max. Service Temperature:	AFS 1540B	200 °C

All values are typical and should not be accepted as a specification.

Health and Safety - Material Safety Data Sheets available on request.

Packages – MM922 is supplied in 5 kg and 20 kg bulk containers. Catalyst is supplied in 250 g and 1 kg containers. MM TA2 is supplied in 50g, 100 g, 500 g and 1 kg containers. Arrangements can be made to supply in other pack sizes.

Storage and Shelf Life – Expected to be 12 months in original, unopened containers below 40°C.

Revision Date: 09/03/2006

The information and recommendations in this publication are to the best of our knowledge reliable. However nothing herein is to be construed as a warranty or representation. Users should make their own tests to determine the applicability of such information or the suitability of any products for their own particular purposes. Statements concerning the use of the products described herein are not to be construed as recommending the infringement of any patent and no liability for infringement arising out of any such use is to be assumed.