

MM740FG

10:1 Addition cure silicone moulding rubber food grade 40 Shore A

Introduction

This is a pourable 2-part addition cure food grade silicone elastomer system. After mixing parts 'A' and 'B' in the correct proportions, the system will cure at ambient temperatures within 24 hours, but the rate of cure can be accelerated by heat. The cured rubber exhibits excellent physical and properties and is ideal for use as a moulding rubber.

FDA compliance

If approved for food use all components present in the fully cured product are listed in CFR 21, 175.300, "Resinous and polymeric coatings" and CFR 21, 177.2600, "Rubber articles intended for repeated use". The fully cured rubber satisfies the requirements of CFR21, 175.300 and 177.2600, sub paragraphs (e) and (f) for applications involving both aqueous and fatty foods

Key Features

- FDA CFR 177.2600 compliant for fatty and aqueous foods
- EC 1935/2004 and EC 10/2011 compliant
- Low shrinkage
- High dimensional stability

Use and Cure Information

IMPORTANT:

The 'A' part of product contains the platinum catalyst; great care should be taken when using automatic dispensing equipment. Please ensure that it is not contaminated by residual hydride containing rubber in the dispensing equipment, as curing will result. If in doubt, it's advised to thoroughly purge the equipment with a suitable hydrocarbon solvent or silicone fluid.

Mixing

Both the 'A' and 'B' parts should be well stirred to ensure the material is uniform and any settlement of the fillers have been remixed. Place the required amount of 'A' and 'B' parts by weight at the mix ratio shown opposite, in a clean plastic or metal container of approximately 3 times their volume, and mix until the colour of the mixture is uniform. For best results, we recommend degassing. Degass by intermittent evacuation, the larger volume of the mixing vessel helps prevent overflow during this operation. In case of automatic dispensing with static mixing head, the two components should be degassed before processing. Recommended vacuum conditions are 30-50 mbar intermittently over 5-10 minutes. Cast the mixture either by gravity or pressure injection.

Inhibition of Cure

Great care must be taken when handling and mixing all addition cured silicone elastomer systems, ensuring that all the mixing tools (vessels and spatulas) are clean and constructed in materials which do not interfere with the curing mechanism. The cure of the rubber can be inhibited by the presence of compounds of nitrogen, sulphur, phosphorus and arsenic; organotin catalysts and PVC stabilizers; epoxy resin catalysts and even contact with materials containing certain of these substances e.g. moulding clays, sulphur vulcanised rubbers, condensation cure silicone rubbers, onion and garlic.

Curing Conditions

The data offers a guide to the rate of cure at various temperatures, mixing of the components at temperatures between 15 and 25 °C is recommended to ensure adequate pot life for degassing and handling. The pot life can be extended to several hours by chilling the components before mixing.

Health and Safety

Safety Data Sheets available on request.

Packaging

ACC Moulding Rubbers are available in a variety packaging including bulk containers. Please contact our sales department for more information.

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Property

Uncured product

Property	Test Method	Value
Appearance		Viscous liquid
Colour A Part		Beige
Colour B Part		White
Cure Type		Addition
De-Mould Time Hrs		4 hrs
Max Cure Hrs @ 25 °C		24 hrs
Max Cure Mins @ 100 °C		30 mins
Mix Ratio		10:1
Pot Life mins		60 mins
Viscosity A-Part mPas	Brookfield	17000 mPas
Viscosity B-Part mPas	Brookfield	2000 mPas
Viscosity Mixed mPas	Brookfield	15000 mPas

Cured product

After 7 days cure at 23° +/-2 °C and 50+/-5% humidity

CTE Linear ppm/°C		252 ppm/°C
CTE Volumetric ppm/°C		756 ppm/°C
Colour		Beige
Duro Shore A	ASTM D 2240-95	40
Elongation %	ISO 37	400 %
FDA	CFR (21) 177.2600	Yes
Linear Shrinkage %		0.1 %
Max Working Temp + °C	AFS_1540B	200 °C
Min Working Temp - °C		-50 °C
Modulus @ 100% Strain MPa		0.91 MPa
Modulus Youngs MPa		1.27 MPa
SG	BS ISO 2781	1.25
Tear kN/m	BS ISO 34-1	11.5 kN/m
Tensile MPa	ISO 37	4.7 MPa

Storage

Max storage temperature °C	30 °C
Shelf life	12 mths

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