

SilSo Replicate 21019 (KÖRAFORM A 50) 2-part casting compound

Description

This is a pourable 2-part addition cure 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 electrical properties.

Key Features

- Stable to temperatures between -40 °C/-40°F and +180 °C/356°F
- Stable to short term exposure of temperatures up to 250 °C/482°F
- Low viscosity and very good casting resin
- Nearly shrink-free during curing

Application

Reproduction of master forms (stereolithographic parts)

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. Degas 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. In order to achieve optimum performance, the same "A" and "B" side lot number should be used.

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 & Safety

Safety Data Sheets available on request.

Packaging

CHT 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

Appearance		Beige
Color A		Beige
Cure Type		Addition
De-mould Time / Full Cure at 23°C/73°F		12 hrs
Density A	DIN 53 479	1.35
Density B	DIN 53 479	0.97
Mix Ratio By Weight		10:1
Pot Life mins at 23°C/73°F		50 mins
Viscosity A	Brookfield HBTD	64000 cP
Viscosity B	Brookfield HBTD	1200 cP

Cured Product

Color		Beige
Density	DIN 53479	1.35 g/cm3
Elongation at Break	DIN 53 504, S 3 A	300 %
Hardness Shore A	DIN 53 505	49
Linear Shrinkage (%)		< 0.1 %
Tear Resistance (N/mm)	ASTM D 624, Die B	9 N/mm / 51 ppi
Tensile Strength	DIN 53 504, S 3 A	4.6 N/mm2 / 667 psi

Storage

Max Storage Temperature	30 °C / 86 °F
Min Storage Temperature	5 °C / 41 °F
Shelf Life	12 mths

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