SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

WEVOSIL 22027 FL

Attributes

The resulting molding material is characterized by its excellent mechanical and elastic properties, as well as its good low-temperature flexibility in the temperature shock test. Recommended temperature range: -60 °C to +180 °C.
The resin is processed together with WEVOSIL 22027 FL B.

Application

Potting for batteries with regard to thermal runaway prevention.

Standards

- Temperature application range -60 °C - +180 °C
- UL 94 V1

Delivery forms

10 kg and 30 kg containers.

Color

WEVOSIL 22027 FL A: Natural
WEVOSIL 22027 FL B: Red

Storage

Polymer (A-component) and crosslinker (B-component) must be stored dry and at a temperature of 5 °C to 30 °C and not in the open air. The containers should be stored upright and not directly on the cold floor (floor temperature not below 5 °C). WEVOSIL 22027 FL has a shelf life of 6 months after production.
At temperatures above 25 °C, the settling of the fillers contained in the casting compound is accelerated. The potting compound is then more difficult to homogenize.

Hardening

- Pot life: 50 - 70 minutes at room temperature, depending on layer thickness and casting volume.
- Curing time: 6 hours at room temperature, 1 hour at 100 °C
- Final chemical curing: several days at room temperature

Curing notes:

- Excessive humidity has a damaging effect on the uncured compound. If necessary, curing should take place in an air-conditioned room, a container with low humidity or in an oven.
- Curing at an elevated temperature (50 - 100 °C) accelerates the curing reaction and can influence the

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

adhesion of the potting compound to the walls of the component.

- The WEVOSIL 22027 FL casting compound reaches its final hardness after a few days at room temperature.
- After approx. 6 hours curing at room temperature (or 1 h @ 100 °C) approx. 90 - 95 % of the Curing takes place. To achieve the final hardness, post-curing can then be carried out for 2 hours at 165 - 180 °C. However, this last step is not absolutely necessary. After a few days, the casting compound reaches its final hardness even at room temperature (depending on the system).
- Electrical tests of the component quality can usually be carried out after the first curing (6 hours at room temperature or 1 h @ 100 °C).

Protection

Our products are intended solely for industrial use. For further details, please refer to the safety data sheet.

Processing

Our processing instructions please find here.

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

General	Unit of measure	Condition	Value	Test method
Mixing ratio	Gew-%		100:100	
Pot lilfe	min	25 °C	90-120	
Curing time	h	25 °C	6	
Curing time	h	100 °C	1	

Mechanical	Unit of measure	Condition	Value	Test method
Density	g/cm³	WEVOSIL 22027 FL A	1.18-1.22	
Density	g/cm³	WEVOSIL 22027 FL B	1.18-1.22	
Viscosity	mPas	WEVOSIL 22027 FL A / 22 °C	700-1300	
Viscosity	mPas	WEVOSIL 22027 FL B / 22 °C	700-1300	
Mixture viscosity		22 °C	700-1300	
Hardness	Shore A		25-35	ISO 48-4
Water absorption	%	30 d / RT	<0.5	
Elongation at break	%		100	ISO 527-2

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Thermal	Unit of measure	Condition	Value	Test method
Thermal class			H	DIN EN 60085
Glass transition temperature	°C		-46	TMA
Thermal conductivity	W/m*K		0.3	ISO 22007-2:2008

Electrical	Unit of measure	Condition	Value	Test method
Dielectric strength	kV/mm		>25	DIN EN 60243
Dielectric constant ε at 50 Hz, 23 °C			3.35	DIN EN 60250
Dielectric constant; at 1 kHz, 23 °C			3.16	DIN EN 60250
Dielectric constant ε at 1 MHz, 23 °C			3.07	DIN EN 60250
Volume resistance specific at 23 °C, 50 % r.h.	Ωxcm		>10^14	DIN EN 62631-3-1:2016
Surface resistivity at 23°C and 50 % r.h.	Ω		>10^14	DIN EN 62631-3-1:2016