ELANTAS
Electrical Insulation

Product Information

Casting Compound

Elan-tron®

SK 6200 LV / SH 6935 LV 100:100

Addition crosslinking silicone, flexible, low processing viscosity, high maximum operation temperature, self extinguishing acc. UL 94 class V1

Product Description

Elan-tron® SK 6200 LV with Cross-Linker Elan-tron® SH 6935 LV produces a low shrinking casting compound. The cross-linking is by an addition mechanism and can be accelerated at increased temperature.

The system meets the ROHS requirements.

Areas of Application

Elan-tron® SK 6200 LV is suited to the potting of pressure sensitive devices and is proven in covering of motor windings subject to high thermal loads, for which fan motors in hot air systems is only one application example. The ability to increase the curing speed by heating gives Elan-tron® SK 6200 LV is an advantage in serial production processes.

Properties of the Insulating Material

- Addition cross-linking
- Room temperature curing
- High long-term thermal resistance (180 °C)
- Low temperature flexibility to– 40 °C
- Elastic casting material
- Good temperature cycling resistance
- Self-extinguishing to UL 94 Class V1
- Repairable

Processing Methods

Preparation of components: The components to be potted should be clean dry and free from grease. Compatibility between the resin and all materials of the component should be checked prior to use.

Preparation of Material: Elan-tron® SK 6200 LV as well as Cross-Linker SH 6835 LV contain filler materials which tend to settle and must be stirred in the original containers to restore the homogenous composition before processing.

Mixing: Elan-tron® SK 6200 LV and Vernetzer Elan-tron® SH 6935 should be mixed in the prescribed ratio. To assist manual mixing systems the Cross-linker Elan-tron® SH 6935 LV is coloured blue. Care should be taken because air may be included during mixing. Brief application of vacuum can be used to remove air bubbles. Equipment must be kept clean and care is needed to avoid cross-contamination of components, which may cause hardening in the equipment after days or weeks of use.

Application: Elan-tron SK 6200 LV/ Vernetzer Elan-tron® SH 6935 LV can be applied either manually or with suitable mixing and dosing equipment for which the 1:1 mix ratio is a big advantage.

Curing conditions:

- at Room Temperature 3-4 h

All vessels pipes, stirrers and equipment used must be thoroughly cleaned because the catalyst in the SK 6200 may be poisoned by traces of sulphur compounds (from vulcanising rubber), amines (from epoxies or adhesives) or heavy metals. Contamination would seriously inhibit the cross-linking reaction.

Storage: Elan-tron® SK 6200 LV and Cross-linker Elan-tron® SH 6935 LV in original unopened containers can be stored for 6 months. The shelf of the material is shown on the on the label of the container.

System Specifications

Property	Condition	Resin	Hardener	Units
Viscosity DIN 53019	25°C	1200 ± 250	900 ± 200	mPa*s
Density DIN EN ISO 2811-1	20°C	1.41 ± 0.05	1.35 ± 0.05	g/cm^3
Shelf Life	23°C	6	6	months

Typical System Characteristics

Property	Condition	Value	Units
Color resin		beige	
Color hardener		blue	
Viscosity IO-10-50 resin	25°C	-/-	mPa*s (0,17/1,7 sec^{-1})
Viscosity IO-10-50 hardener	25°C	-/-	mPa*s (0,17/1,7 sec^{-1})
Mix Ratio by weight (resin : hardener)		100:100	Parts by weight
Mix Viscosity DIN 53019	25°C	1100	mPa*s
Process time (200gr mixture)	20°C	ca. 60	min

Typical Cured System Characteristic (Post cure before measurement 24h/23°C + 16h/80°C)

Property	Condition	Value	Units
Thermal Conductivity DIN 52613		0.30	W/m*K
Glass transition temperature IEC 61006		- 46	°C
Thermal index IEC 216 flexural strength	% weight loss	-	°C
Linear coefficient of expansion Beck Test M 56	above tg	290 x 10^{-6}	K^{-1}
Specific Gravity DIN 16945	20°C	1.38 ± 0.05	g/cm^3
Hardness ISO 868		35 ± 10	Shore A
Tensile Strength DIN 53455/457		-	MPa
Bending Strength		-	MPa
Volume resistivity IEC 60455 Part 2	23°C 23°C (7d storage in water)	- -	Ω*cm Ω*cm
Dielectric Constant ε_r IEC 60250	23°C / 50 Hz 23°C / 1K Hz	3,3 2,8	
Dielectric Strength IEC 60250	23°C 50% rh 23°C (7d storage in water)	30 -	kV/mm kV/mm
Dissipation factor tan-δ IEC 60250	50Hz, 23°C, 50% rh 1 KHz 23°C, 50% rh 1MHz,23°C, 50% rh	0.014 0.004 -	
Dissipation factor tan-δ IEC 60250 7 days storage in water	50Hz, 23°C, 50% rh 1 KHz 23°C, 50% rh 1MHz,23°C, 50% rh	- - -	
Tracking resistance IEC 60112		600	CTI
Water absorption ISO 62	24h RT	0.2	%

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