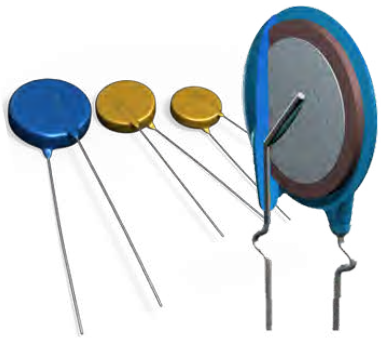
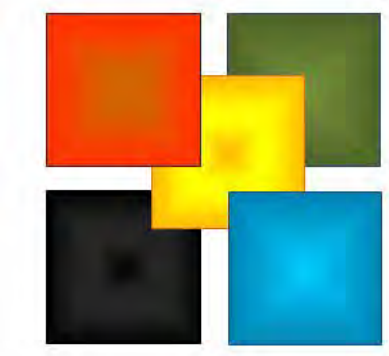
SolEpoxy™ DK18-05

Class 2 & 3 capable epoxy coating powder for ceramic capacitors/varistors and tantalum capacitors



DESIGNED FOR CLASS 2 CERAMIC CAPACITORS AND VARISTORS



AVAILABLE IN A WIDE RANGE OF COLORS

GREAT FOR TANTALUM CAPACITORS. PICKS UP AND CURES AS LOW AS 110°C

UL-LISTED WITH A V-0 FLAMMABILITY AND RTI RATING OF 105°C

DESCRIPTION

SolEpoxy™ DK18-05 is a medium-performance, epoxy coating powder developed for **Class 2 & 3 capacitors and varistors**.

DK18-05 has **excellent pickup and curing** at temperatures **as low as 110°C**, making it excellent also for **tantalum capacitors and other temperature sensitive devices**.

DK18-05 has a proven track record, is recognized with a **UL 94 V-0 flammability rating**, and is available in a wide range of colors.

ADVANTAGES

- Used for more than 20 years on capacitors, varistors, and other passive components
- UL-recognized with a UL 94 V-0 flammability rating
- Has a pickup and cure temperature as low as 110°C
- Even better pickup and cure speed at higher temperatures
- Laser markable
- Available in a range of colors, including blue and gold

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RECOMMENDED CURE CONDITIONS

Application Method [1],	electrostatic fluidized bed	■■□□
	fluidized bed	■■■■
	electrostatic spray / blow coating	■□□□
Cure Conditions, minutes,	@ 110 °C	30
Preheat Temperature, °C		100 – 180

UNCURED PROPERTIES

Particle Size, %,	- 177 micron / 80 mesh	100
	- 44 micron / 325 mesh	35
Halogen-free		no
RoHS / REACH Compliant		yes
Shelf Life, from date of manufacture, months,	@ 10 °C	12

TYPICAL CURED GENERAL PROPERTIES

Available Colors [2]	Black	Blue	Gold
ability to visually detect arc tracks [1]	■■■□	■■■□	■■■□
Specific Gravity, g/cc		1.64	
Glass Plate Flow, mm,	@ 150 °C	32	
Hot Plate Gel Time, seconds,	@ 160 °C	23	
Laser Markable [1]		■■■□	
Moisture Absorption [3], weight %,	@ 24 hours	0.37	

TYPICAL CURED THERMAL PROPERTIES

Glass Transition Temperature [4], °C		107
Coefficient of Thermal Expansion (CTE), ppm/°C,	Alpha 1	46.0
	Alpha 2	129
UL Relative Thermal Index (RTI) Rating, UL 746B, °C		105

TYPICAL CURED ELECTRICAL PROPERTIES

Insulation Resistance,	@ 25 °C	8.4×10^{13}
	@ 100 °C	7.0×10^{11}
Dielectric Strength [5],	volts/mil	1060
	kV/mm	41
Dielectric Constant, 100 Hz,	@ 25 °C	4.2
	@ 100 °C	4.3
Dielectric Constant, 10 kHz,	@ 25 °C	4.2
	@ 100 °C	4.0
Dissipation Factor, 100 Hz,	@ 25 °C	0.012
	@ 100 °C	0.038
Dissipation Factor, 10 kHz,	@ 25 °C	0.009
	@ 100 °C	0.012

[1] rating: ■□□□ poor, ■■□□ fair, ■■■□ good, ■■■■ excellent
[2] custom colors may be possible to formulate
[3] 18 mil for 24 hours @ 23°C
[4] cured 60 minutes @ 150°C
[5] 20 mil / 0.51 mm thickness

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STORAGE & HANDLING

Materials should be stored at 10°C or below, in closed containers. After removal from cold storage, the material **must be allowed to come to room temperature** in the sealed container to avoid moisture contamination. Suggested waiting time is 24 hours. Please consult our *Product Handling Recommendations for Epoxy Mold Compounds*.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

DATA RANGES

The data contained herein may be reported as a typical value and/or range of values based on actual test data and are verified on a periodic basis.