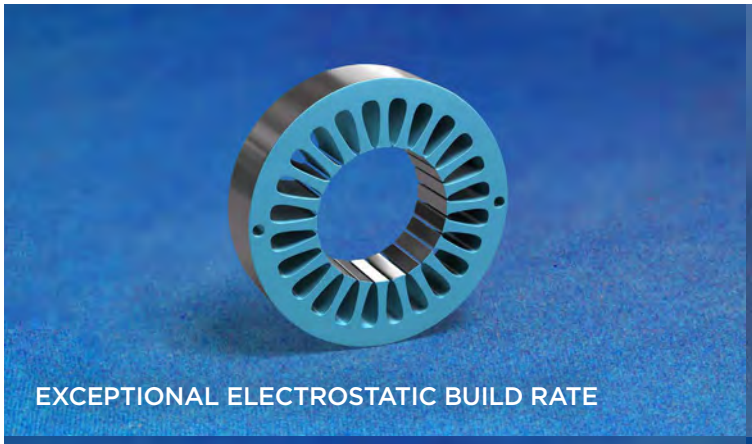
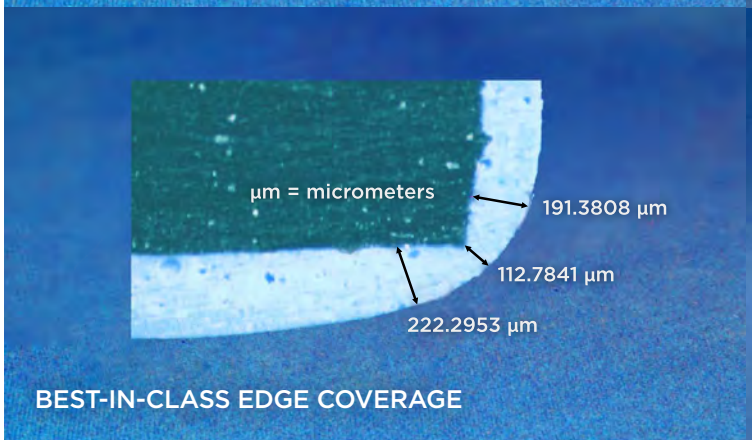
SolEpoxy™ DK7-0953M

Extremely stable, Class F rated insulation epoxy coating powder for electric motor armatures and stators


EXCEPTIONAL ELECTROSTATIC BUILD RATE


GREAT CUT-THROUGH RESISTANCE



BEST-IN-CLASS EDGE COVERAGE


EXCEPTIONAL SHELF LIFE AT ROOM TEMPERATURE

DESCRIPTION

SolEpoxy™ DK7-0953M works extremely well for both **AC and DC electric motors**. This includes **armatures and stators for fractional horsepower motors and higher**.

The coating provides **superior edge coverage** and **high impact strength** which yields a more durable motor. **High cut through temperature** serves to protect the motor even at high operating temperatures. DK7-0953M is tested and qualified for **UL EIS 1446 155°C (Class F) rating**.

Exceptional shelf stability is an attractive feature of this coating powder.

ADVANTAGES

- Permits the use of more copper in the slots allowing for smaller, higher-power motors
- Better heat transfer than slot liners because of the intimate bonding of the insulating powder to the laminations
- Reduced copper waste compared to slot liners since the winding does not need to go up and over the liner
- Shelf life greater than one year with 10°C storage

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RECOMMENDED CURE CONDITIONS

Application Method [1],	electrostatic fluidized bed	■■■■
	fluidized bed	■■■□
	electrostatic spray / blow coating	■□□□
Cure Conditions, induction cure, minutes,		0.5 – 3.0
Preheat Temperature		none

UNCURED PROPERTIES

Particle Size, %,	- 177 micron / 80 mesh	100
	- 44 micron / 325 mesh	20 – 35
Halogen-free		yes
RoHS / REACH Compliant		yes
Shelf Life [1], from date of manufacture, months,		
	@ 10 °C	18
	@ 23 °C	12

TYPICAL CURED GENERAL PROPERTIES

Available Colors [2]		Blue
ability to visually detect arc tracks [1]		■■■■
Specific Gravity, g/cc		1.68
Glass Plate Flow, mm,	@ 150 °C	19
Hot Plate Gel Time, seconds,	@ 160 °C	57
	@ 210 °C	27
Moisture Absorption [3], weight %,	@ 24 hours	0.32
Cut Through [4], °C		365
Edge Coverage [5], %		45.8

TYPICAL CURED MECHANICAL PROPERTIES

Closed Anvil Impact [6],	inch/lbs	> 160
	joules	> 8.79

TYPICAL CURED THERMAL PROPERTIES

Glass Transition Temperature (Tg) [7], °C		113
Coefficient of Thermal Expansion (CTE), ppm/°C,		
	Alpha 1	29.5
	Alpha 2	126
UL Relative Thermal Index (RTI) Rating, UL 746B, °C		155
UL Class Rating, UL 1446		F

TYPICAL CURED ELECTRICAL PROPERTIES

Dielectric Strength [8],	volts/mil	785
	kV/mm	31
Dielectric Constant, 25 °C,	@ 100 Hz	4.7
	@ 10 kHz	4.6
Dissipation Factor, 25 °C,	@ 100 Hz	0.003
	@ 10 kHz	0.005

[1] rating: ■□□□ poor, ■■□□ fair, ■■■□ good, ■■■■ excellent
[2] custom colors may be possible to formulate
[3] 18 mil for 24 hours @ 23°C
[4] 2 lbs weight, 26 gauge wire
[5] dipped, cured @ 210 °C, ~17 mils / 0.43 mm
[6] cured 10 minutes @ 210°C
[7] cured 60 minutes @ 150 °C
[8] 20 mil / 0.51 mm thickness

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STORAGE & HANDLING

Powder 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 Coating Powders*.

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.