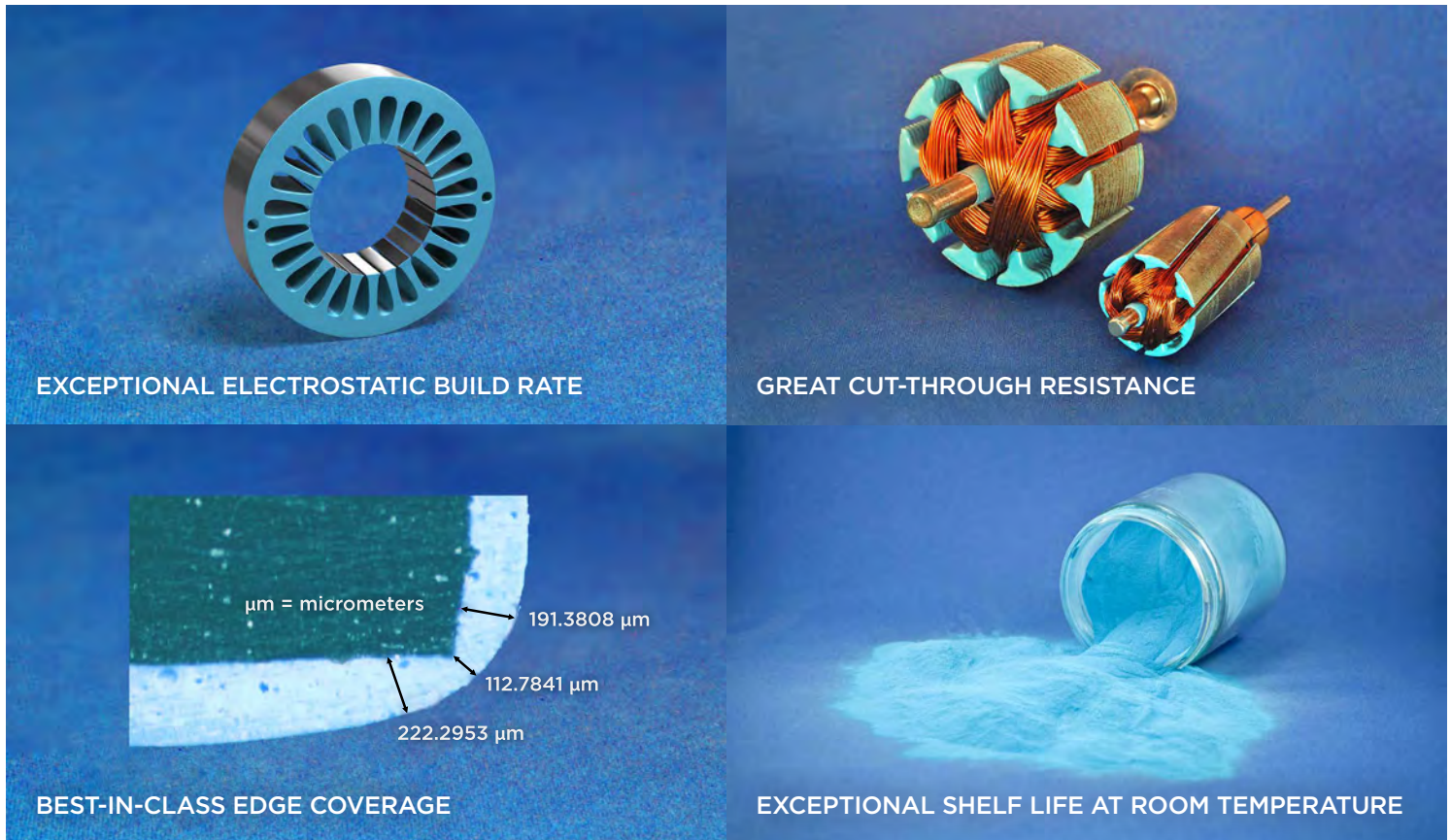


SolEpoxy™ DK7-0953M



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



EXCEPTIONAL ELECTROSTATIC BUILD RATE

GREAT CUT-THROUGH RESISTANCE

μm = micrometers
191.3808 μm
112.7841 μm
222.2953 μm

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
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Preheat Temperature	none
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UNCURED PROPERTIES

Particle Size, %, - 177 micron / 80 mesh	100
- 44 micron / 325 mesh	20 - 35

Halogen-free	yes
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RoHS / REACH Compliant	yes
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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
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Glass Plate Flow, mm,	@ 150 °C	19
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Hot Plate Gel Time, seconds,	@ 160 °C	57
	@ 210 °C	27

Moisture Absorption ³ , weight %, @ 24 hours	0.32
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Cut Through ⁴ , °C	365
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Edge Coverage ⁵ , %	45.8
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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
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Coefficient of Thermal Expansion (CTE), ppm/°C,	
Alpha 1	29.5
Alpha 2	126

UL Relative Thermal Index (RTI) Rating, UL 746B, °C	155
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UL Class Rating, UL 1446	F
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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.

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