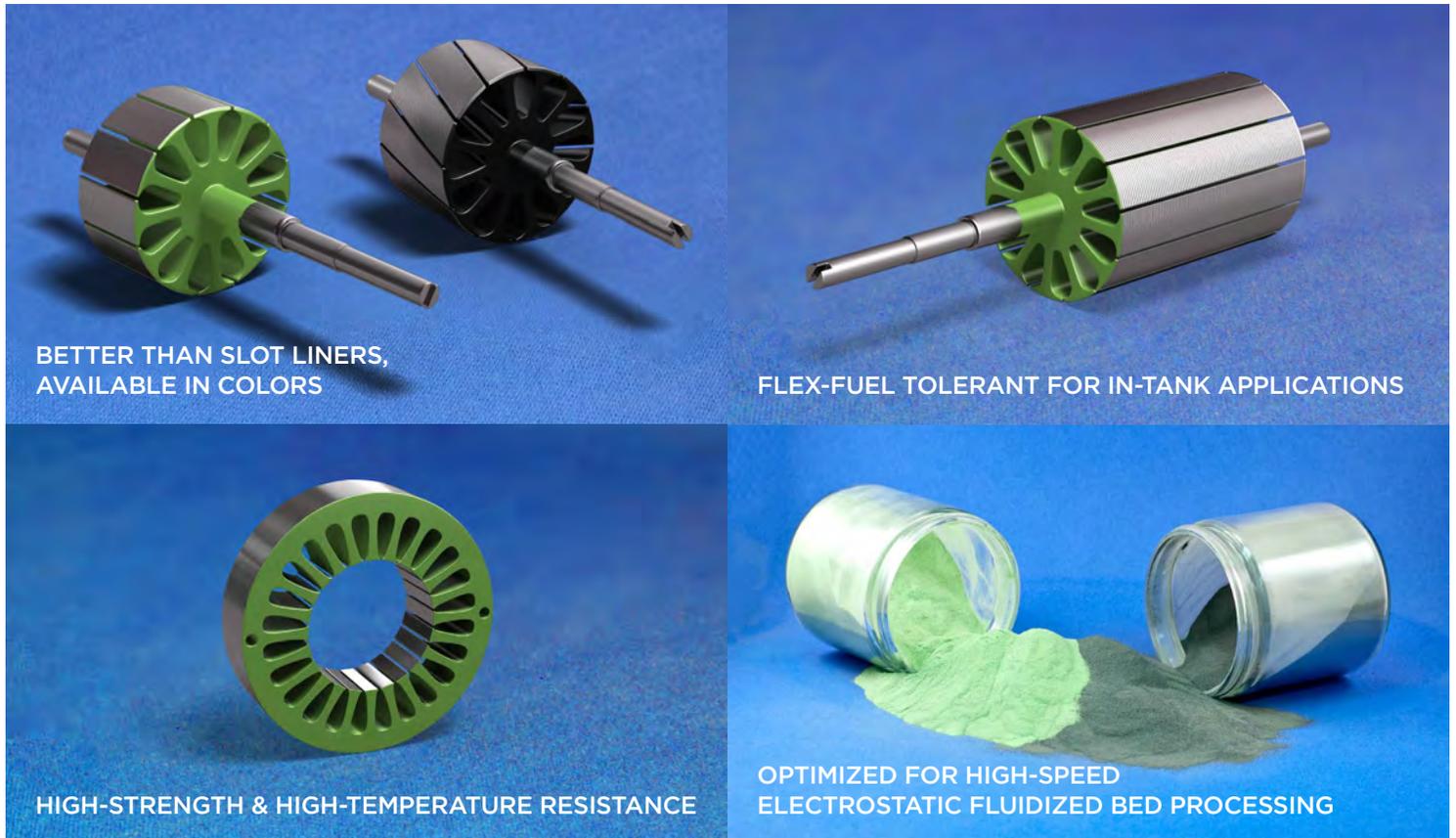


SolEpoxy™ DK15EG-05



Flex fuel resistant, Class F rated epoxy powder coating for automotive fuel pump motor armature and stator insulation



DESCRIPTION

SolEpoxy™ DK15EG-05 works extremely well for both **AC and DC electric motors**, including those used for **in-tank fuel pumps**.

The coating provides **superior flex fuel resistance, edge coverage, and high impact strength**. **High cut through temperature** serves to protect the motor even at high operating temperatures.

DK15EG-05 is designed for electrostatic fluid bed application, and is tested and qualified for **UL EIS 1446 155°C (Class F) rating**.

ADVANTAGES

- ▶ Flex fuel resistant, suitable for exposure to automotive fluids
- ▶ Permits the use of more copper in the slots allowing for smaller, higher-power motors
- ▶ Better heat transfer than slot liners due to 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

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The flex fuel resistant epoxy powder coating designed for electric motor armature and stator insulation in automotive applications

RECOMMENDED CURE CONDITIONS

Application Method ¹ , electrostatic fluidized bed	■■■■
fluidized bed	■■■□
electrostatic spray / blow coating	■□□□
Cure Conditions, induction cure, minutes,	0.5 - 3.0

UNCURED PROPERTIES

Bulk Density, g/cc	0.74
Particle Size, %, -177 micron / 80 mesh	100
-44 micron / 325 mesh	26
Halogen-free	yes
RoHS / REACH Compliant	yes
Shelf Life ¹ , from date of manufacture, months,	
@ 10 °C	12
@ 23 °C	3

TYPICAL CURED GENERAL PROPERTIES

Available Colors ²	● Green	● Black
ability to visually detect arc tracks ¹	■■■□	■□□□
Specific Gravity, g/cc	1.75	
Glass Plate Flow, mm,	@ 150 °C	22
Hot Plate Gel Time, seconds,	@ 160 °C	18
	@ 210 °C	5
Moisture Absorption ³ , weight %, @ 24 hours	0.30	
Cut Through ⁴ , °C,	380	
Edge Coverage ⁵ ,	%	34.2

TYPICAL CURED MECHANICAL PROPERTIES

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

TYPICAL CURED THERMAL PROPERTIES

Glass Transition Temperature (Tg) ⁷ , °C	155
Coefficient of Thermal Expansion (CTE), ppm/°C,	
Alpha 1	39.4
Alpha 2	123
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	1010
	kV/mm	39
Dielectric Constant, 100 Hz,	@ 25 °C	5.38
	@ 100 °C	5.27
Dissipation Factor, 100 Hz,	@ 25 °C	0.0173
	@ 100 °C	0.0150

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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