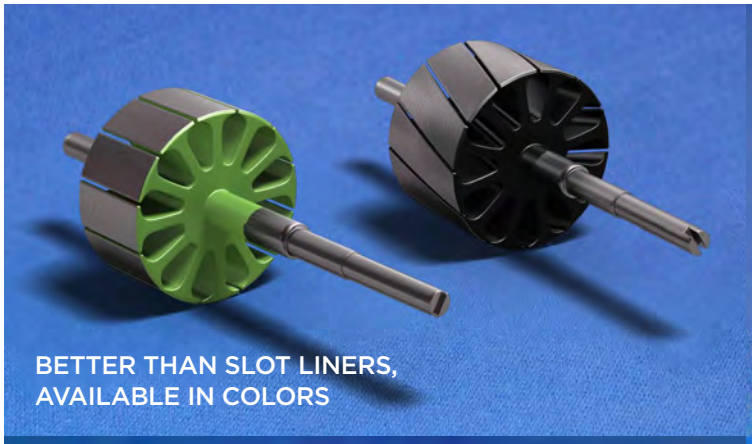
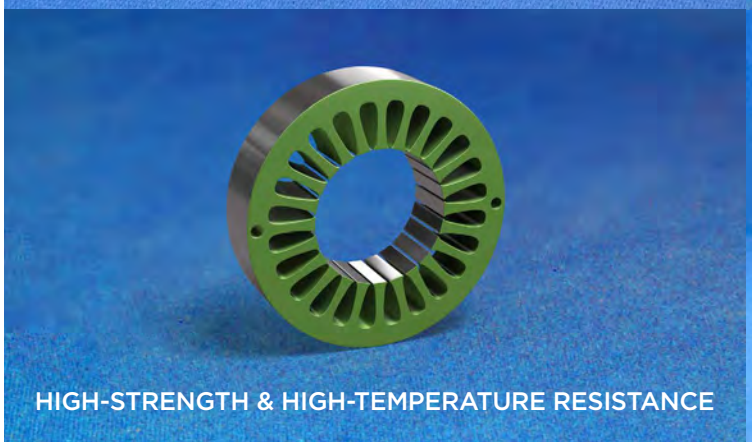
SolEpoxy™ DK15EG-05

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

SolEpoxy™ DK15EG-05

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

SolEpoxy™ DK15EG-05

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

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.