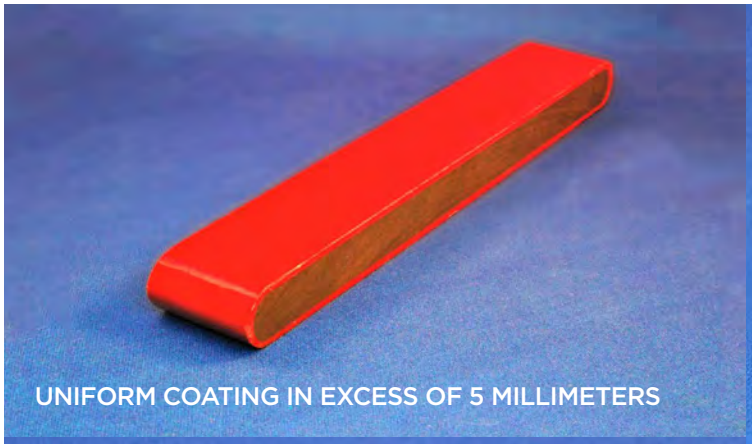
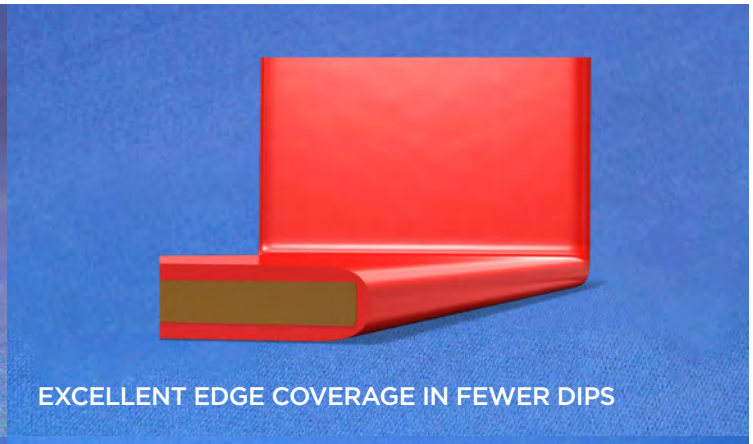
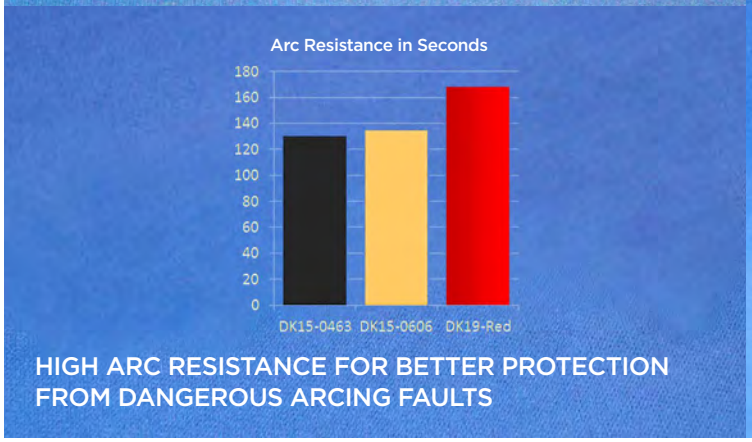
SolEpoxy™ DK19

Industry standard epoxy coating powder for medium voltage (600V – 38kV) busbars and switchgear


UNIFORM COATING IN EXCESS OF 5 MILLIMETERS


EXCELLENT EDGE COVERAGE IN FEWER DIPS



HIGH ARC RESISTANCE FOR BETTER PROTECTION FROM DANGEROUS ARCING FAULTS


AVAILABLE IN FINE GRIND AND LONG GEL TIME VERSIONS

DESCRIPTION

SolEpoxy™ DK19 is a high performance, epoxy-based coating powder developed for the **insulation of medium voltage (up to 38 kV) busbars** where **good arc resistance is critical** to performance.

DK19 has a **high build rate**, giving the busbar both **high edge coverage** and allowing the busbar to have the **thickest possible coating with the fewest number of dips** at the most critical place on the busbar.

DK19 has a particle size distribution which is tailored for application via a fluid bed process.

ADVANTAGES

- Industry standard for medium voltage busbars
- Best-in-class arc resistance
- Suitable for copper and aluminum bar
- Higher powder thickness build-up in fewer dips
- Build in excess of 200 mils (5 mm)
- Rapid build rates to reduce cycle times

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RECOMMENDED CURE CONDITIONS

Application Method [1],	electrostatic fluidized bed	■□□□
	fluidized bed	■■■■
	electrostatic spray / blow coating	■□□□
Cure Conditions, minutes,	@ 170 °C	20
Preheat Temperature, °C		170 – 220

UNCURED PROPERTIES

Bulk Density, g/cc		0.85
Particle Size, %,	- 177 micron / 80 mesh	100
	- 44 micron / 325 mesh	27
Halogen-free		yes
RoHS / REACH Compliant		yes
Shelf Life, from date of manufacture, months,	@ 10 °C	9

TYPICAL CURED GENERAL PROPERTIES

Available Colors [2]		Red
ability to visually detect arc tracks [1]		■■■■
Specific Gravity, g/cc		1.81
Glass Plate Flow, mm,	@ 150 °C	21
Hot Plate Gel Time, seconds,	@ 160 °C	50
Build Rate, mil/sec,	@ 180 °C	7.1
	@ 210 °C	8.7
Edge Coverage [3],	%	45.0

TYPICAL CURED MECHANICAL PROPERTIES

Closed Anvil Impact [4],	inch/lbs	140
	joules	7.69

TYPICAL CURED THERMAL PROPERTIES

UL Relative Thermal Index (RTI) Rating, UL 746B, °C	105

TYPICAL CURED ELECTRICAL PROPERTIES

Volume Resistivity, ohms-cm,	500 volts @ 25 °C	7.8×10^{16}
Arc Resistance, seconds		168
Insulation Resistance,	@ 25 °C	1.1×10^{13}
	@ 100 °C	3.0×10^{12}
Dielectric Strength [5],	volts/mil	1040
	kV/mm	41
Dielectric Constant, 100 Hz,	@ 25 °C	3.9
	@ 100 °C	4.0
Dissipation Factor, 100 Hz,	@ 25 °C	0.017
	@ 100 °C	0.068

[1] rating: ■□□□ poor, ■■□□ fair, ■■■□ good, ■■■■ excellent

[2] custom colors may be possible to formulate

[3] dipped, cured @ 210 °C, ~17 mils / 0.43 mm

[4] cured 10 minutes @ 210°C

[5] 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.