

# 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**

**Arc Resistance in Seconds**

Product	Arc Resistance (Seconds)
DK15-0463	~130
DK15-0606	~135
DK19-Red	~170

## 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 <sup>1</sup> , 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<sup>2</sup>  Red  
ability to visually detect arc tracks<sup>1</sup> ■■■■

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<sup>3</sup>, % 45.0

## TYPICAL CURED MECHANICAL PROPERTIES

Closed Anvil Impact<sup>4</sup>, 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 x 10<sup>16</sup>

Arc Resistance, seconds 168

Insulation Resistance, @ 25 °C 1.1 x 10<sup>13</sup>  
@ 100 °C 3.0 x 10<sup>12</sup>

Dielectric Strength<sup>5</sup>, 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

<sup>1</sup> rating: ■□□□ poor, ■■□□ fair, ■■■□ good, ■■■■ excellent

<sup>2</sup> custom colors may be possible to formulate

<sup>3</sup> dipped, cured @ 210 °C, -17 mils / 0.43 mm

<sup>4</sup> cured 10 minutes @ 210°C

<sup>5</sup> 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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