

# CeQUIN® 3000

## High Performance Inorganic-Based Electrical Insulation Paper

### DESCRIPTION

CeQUIN 3000 is a modified version of CeQUIN I developed by IPT's research and development team to provide high strength thin papers. By introducing a small percentage of organic fiber reinforcement along with a higher strength binder system, CeQUIN 3000 papers may be produced in 3 mil and 5 mil thicknesses. CeQUIN 3000 is composed of approximately 74% inorganic content as compared to the 90% inorganic content of CeQUIN I. CeQUIN 3000 may be laminated with polyester film, or glass fabric to enhance initial dielectric strength or improve mechanical manageability. CeQUIN 3000 is available in continuous roll stock up to 36 inches wide, as slit tapes, or sheets.

### APPLICATIONS

#### High Temperature Electrical insulation for:

##### Dry-Type Transformers

- Ground Insulation
- Phase Insulation
- Layer Insulation
- Interwinding for strip wound coils

##### Traction Motors, Generators

- Interwinding for form wound coils
- Phase Insulation

##### Wire and Cable Wrap

##### Capacitor and Electromagnet Layer Insulation

### FEATURES

#### ❖ UL® & CSA CERTIFICATION

UL systems recognition through Class 220(R).  
CSA Component Acceptance:  
Temperature Class 220°C.

#### ❖ DIELECTRIC PERFORMANCE

CeQUIN 3000 papers retain a high percentage of dielectric strength even after extended exposure to high operating temperatures. CeQUIN 3000 will also exhibit greater voltage endurance under continuous electrical stress than many other electrical insulation materials.

#### ❖ THERMAL CONDUCTIVITY

The high thermal conductivity of CeQUIN 3000 helps achieve the heat dissipation required in today's high efficiency electrical apparatus allowing the design of smaller, more cost effective equipment.

#### ❖ VARNISH ABSORPTION

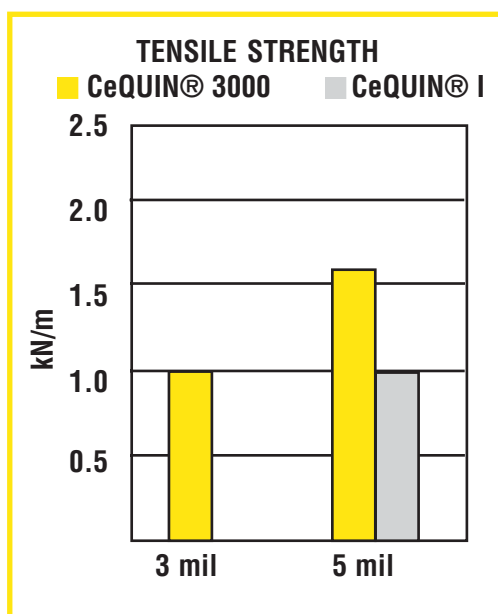
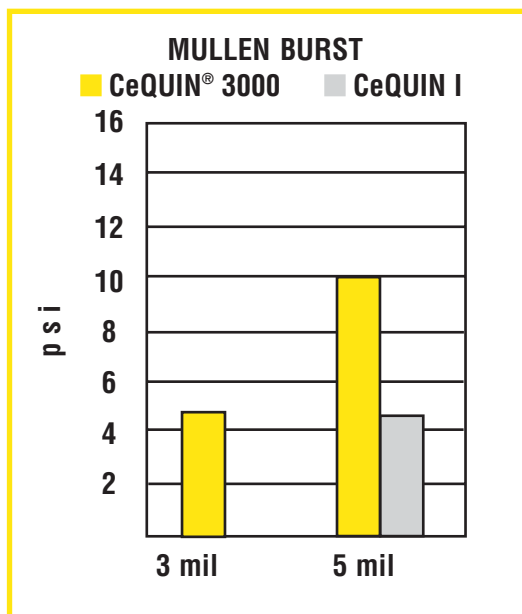
The good varnish absorption characteristics of CeQUIN 3000 can enhance its already high thermal conductivity allowing equipment to run cooler, quieter, and last longer.

#### ❖ LOW MOISTURE ABSORPTION

Manufactured with less than 1% moisture content, CeQUIN 3000 exhibits low moisture absorption even in humid environments, thereby reducing the need for extended drying cycles.

**CeQUIN® 3000**  
**Typical Product Properties**

<b>Nominal Thickness</b>	<b>mm</b>	0.08	0.13
	<b>mil</b>	3	5
<b>Basis Weight</b>	<b>kg/m<sup>2</sup></b>	0.06	0.11
	<b>lb/yd<sup>2</sup></b>	0.12	0.20
<b>Tensile Strength, MD</b>	<b>kN/m</b>	1	1.6
	<b>lb/inch</b>	5.5	9
<b>Elongation to Break, MD</b>	<b>%</b>	1.4	1.4
<b>Moisture</b>	<b>%</b>	<1	<1
<b>Dielectric Breakdown</b>	<b>kV</b>	0.6	1.0



**ENVIRONMENTAL SAFETY AND HEALTH**

CeQUIN 3000 meets all current OSHA requirements for health and safety with normal handling and good work practices. CeQUIN 3000 falls within the threshold limit values for chemical substances in the work environment as specified by the American Conference of Governmental Industrial Hygienists. A Material Safety Data Sheet is available upon request. Exposure to inorganic fibers can cause slight dermatitis in some individuals. Waste should be disposed of in accordance with local landfill requirements. CeQUIN 3000 will generate products of combustion. Since these products will vary with every oven or condition, the health and safety of the worker should be assured by monitoring the work site for any toxic products of combustion.

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Bulletin No. CQ3 304

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