

ElectroLAM™ Composite Materials for a range of electrical devices and applications



The power generation industry relies on high temperature thermoset laminates, pre-pregs and specialty molded shapes that can endure extreme heat and mechanical conditions. Applications include rotor and stator blocking, wedges, slot liner, and other high temperature, high load, applications.

For electrical transmission and distribution equipment such as control devices and power transformers, ElectroLAM™ materials are fully insulative, fully conductive, or semi conductive in order to create static dissipative products. Applications include terminal boards and tap changers.



In medical and scientific devices, critical imaging and other equipment utilizes rigid high performance insulation. Some applications require specialty low x-ray attenuation materials. ElectroLAM™ is fabricated into coil components in sophisticated MRI units and is a valued component in many scientific devices.

In rail and mass transit applications, ElectroLAM™ composites provide electrical insulation for motor mounts, generator mounts and surrounding electrical equipment used for railroads. For subway applications, ElectroLAM™ composites provide electrical insulation between the car and the electrical current running from the third rail to the motor.



ElectroLAM™ materials are used because they are:

High Dielectric Strength

ElectroLAM™ materials utilize tough, insulating resin systems on various reinforcements to deliver robust design options.

Arc Resistant

Utilizing special resin systems, some ElectroLAM™ materials are non-conductive, even after an arc event.

Thermally Stable

Utilizing advanced resins on high temperature reinforcements, materials are designed for the most demanding environments.

Product Forms

pre-pregs

The basis for all
Norplex-Micarta materials.

sheets

Flat sheets made from pre-preg
are available in sizes from 48" x 36"
to 48" x 120" and sheet thicknesses
from 0.005" to 8.000".

tubes and stock shapes

Tubes are offered in ID's from 0.093" to
48.000", wall thicknesses of 0.031" to
5.750". Many stock shapes such as
wedges are available.

Resin Systems

melamine

Arc Resistant, Self-extinguishing,
Excellent electrical properties, Colorless,
Better hardness than phenolic

phenolic

Good chemical and thermal resistance,
Inherently low in flammability,
Low cost

epoxy

Excellent electrical insulation,
Good chemical resistance,
Predictable thermal response

Reinforcements

fiberglass

Highest Strength, Excellent
flammability, Lowest moisture
absorption, Excellent insulation

cotton

Will not cold flow, Better
mechanical properties than paper,
Easy to machine, Good heat resistance,
Low water absorption

paper

Easily machined or punched, Good
electrical insulator, Low Cost

Specifications

Norplex-Micarta takes the responsibility of testing and certifying materials to industry and customer standards very seriously. Norplex-Micarta certifies to OEM and customer provided specifications. In addition to many different industry standards established by various organizations. Including but not limited to:



NEMA LI 1-1998
MIL-I-24768



ASTM D709



IEC 60893
IEC 61212
IEC 62011



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