Resinite Phenolic Impregnated Tubing
Resinite Phenolic Impregnated Tubing

General Description...
Resinite affords the lowest cost, high strength, dielectric tubing available. It is spirally wound from neutral, natural, electrical grade kraft paper which is then vacuum impregnated with a high quality phenolic resin. After impregnation the tubing is baked at 300° F. in order to cure the resin and to form an homogenous product. This tubing, then, has its own special, high quality characteristics for electrical and mechanical applications. Resinite tubing is centerless ground to close tolerance and then fabricated to specifications.

Advantages...
Because of its high mechanical strength combined with good dielectric properties, Resinite will support itself not only under loads of heavy coil windings, but also in situations where paper or plastic would either give way or simply not work. Resinite will support lugs and terminals; it can be used as rollers or as high strength containers. Resinite can be fabricated by punching, slitting, cutting and turning. Its heat resistance is such that it will readily accept dip or hand soldering of terminals. Resinite can also be embossed to accept threaded iron cores.

Available types...
Resinite is available in five different formulations, so that a wide variety of applications may be combined with cost factors. Two formulations are recognized as flame retardant by U/L. Precision will be glad to work with you in supplying the lowest cost tubing that will meet your requirements.

Available configurations...
Resinite is available in round, square or rectangular tubing. It can have terminals or lugs applied, either PC or tie-off, along any part of the outside wall. These terminals can be placed on the tubing proper or on a separate collar which is then adhered to the tubing. Tubing may be embossed for threaded cores. Resinite tubing can be fabricated for specific applications by punching, cutting, slitting or turning. It can also be rolled to form a closed end.
### Resinite Phenolic Impregnated Tubing Properties

**RG-8108** A formulation that is intended primarily for mechanical applications where higher phenolic content is not required.

- **Dielectric Strength**—vpm .................................................. 210
- **Temperature Classification** .................................................. 90 (O)
- **Moisture Absorption**—% (72 hrs., 100% hum., 105°F) ................. 12%
- **Coefficient of Thermal Expansion**—parts/°C .......................... $1.3 \times 10^{-4}$

**RB-8111** The standard grade “Resinite” tubing that is used for most electrical applications. Its high strength is combined with extremely favorable electrical characteristics.

- **Dielectric Strength**—vpm .................................................. 260
- **Temperature Classification** .................................................. 105(A)
- **Volume Resistivity**—ohms/cm, (.013” wall, .280” OD) .............. $1.2 \times 10^{14}$
- **Dielectric Constant** (@ 1MHz) .............................................. 3.32
- **Moisture Absorption**—% (72 hrs, 100% hum, 105°F) .............. 2.86%
- **Coefficient of Thermal Expansion**—parts/°C .......................... $1.0 \times 10^{-4}$

**RS-8717** A superior grade of tubing that provides extremely high strength with the best stability over a wide temperature range.

- **Dielectric Strength**—vpm .................................................. 290
- **Temperature Classification** .................................................. 105(A)
- **Volume Resistivity**—ohms/cm, (.013” wall, .280” OD) .............. $1.2 \times 10^{14}$
- **Dielectric Constant** (@ 1MHz) .............................................. 3.32
- **Moisture Absorption**—% (72 hrs, 100% hum, 105°F) .............. 2.86%
- **Coefficient of Thermal Expansion**—parts/°C .......................... $1.0 \times 10^{-4}$

**FR-9120** A special impregnating formulation that allows U/L to recognize this tubing for use in flame retardant applications. FR-9120 is the standard grade flame retardant tubing for basic coil winding and bobbin use.

- **Dielectric Strength (VPM)** .................................................. 250
- **Temperature Class** ......................................................... 105(A)
- **Volume Resistivity (Ohms/cm.)** .......................................... $1.1 \times 10^{12}$
- **Dielectric Constant (@ 1 MHz)** ........................................ 2.62
- **Moisture Absorption (72 hrs @ 100% hum.)** ................. 2.91%
- **Color (Surface)** ................................................................. Blue/Green
- **U/L Rating (.017” wall min.)** ............................................. 94V-O
- **U/L Yellow Card No.** .......................................................... ES0630

**FR-9120 - 1** This flame retardant tubing is the fabricating grade where further fabrication is required such as punching, notching, threading, lugging or slitting.

- **Dielectric Strength (VPM)** .................................................. 250
- **Temperature Class** ......................................................... 105(A)
- **Volume Resistivity (ohms/cm.)** .......................................... $1.5 \times 10^{12}$
- **Dielectric Constant (at 1 MHz)** ........................................ 2.73
- **Moisture Absorption (72 hrs at 100% hum.)** ................. 3.12%
- **Color (Surface)** ................................................................. Brown/Black
- **U/L Rating (.006” wall min.)** ............................................. 94V-O
- **U/L Yellow Card No.** .......................................................... ES0630

Note: The materials and specifications in this catalog are published only as a helpful suggestion in your own experimentation. The information is not intended to be used as design data. Our engineering department will be glad to work with you on individual problems.