

Resinite FR-9120

Thermoform-700



Recognized Flame Retardant Insulating Parts

With the recent recognition by Underwriters' Laboratories, Inc. of Thermoform-700 as an FR1 insulating component, Precision can now offer a choice of three spiral wound insulating materials for use in equipment that requires recognition. Resinite FR9120 and FR9120-1 have been U/L recognized as both SE0 and FR1.

Resinite FR9120 and FR9120-1 are available in round form only but can be fabricated into literally hundreds of different shapes, sizes and forms. FR9120-1 is the fabricating grade while FR9120 is available as tubing only. Thermoform-700 is available in either round, square or rectangular shapes and it, too, can also be fabricated into a countless number of sizes and shapes.

How do you choose? First of all, check the material properties. Thermoform-700 has a higher dielectric strength and temperature range. It also costs more. Mechanically, Resinite FR-9120 is a strong, rigid material. Thermoform-700 is also very strong but it is a resilient material that can be flexed or deformed without cracking or breaking. The minimum wall thickness for Resinite FR-9120 is .015" while Thermoform-700 is .004". Thermoform-700 exceeds class H requirements. We've indicated some suggested uses for each type of material but if you're still in doubt, give us a call or drop us a line.

Resinite FR-9120

Advantages: For the first time, a low cost, moisture resistant, paper base tubing has been recognized by Underwriters' Laboratories, Inc. for electrical and electronic uses in flame retardant applications. This tubing has all the attributes of well known Resinite tubing but in a flame retardant grade. It is U/L recognized as both FR-1 and SE-0.

General Description: Resinite FR9120 and FR9120-1 are spirally wound, neutral, natural, dielectric kraft tubing that has been impregnated with special, flame retardant resins. FR9120 is the standard grade tubing for basic coil winding and bobbin use and FR9120-1 is the fabricating grade where further fabrication is required such as punching, notching, threading, lugging or slitting. Tubing is available in round form only.

Suggested Uses: Applications that must meet flame retardant specifications in electrical and electronic devices; particularly those that require the mechanical qualities of Resinite such as flyback transformers and coil forms, switch covers, pilot light shields, etc.

Minimum Wall Thickness: .015"

Resinite FR-9120





Thermoform-700

Thermoform-700

Advantages: Thermoform-700 tubing is produced from "Nomex",¹ a material that is recognized for its excellent electrical, thermal and mechanical properties. Precision has developed a method of fabricating tubing of this material using a compatible binder that provides a laminated, thermally stable, Class "H" insulating tubing that can be used in flame retardant applications in temperatures up to 700°F. Prior to this breakthrough, "Nomex", in tubing form, was limited by the binder to much lower classifications. Precision's Thermoform-700 tubing has found wide application in high temperature, high dielectric, fabricated insulating parts for applications that must meet rigid inspection requirements.

Material Properties:	FR9120	FR9120-1
Dielectric Strength (VPM)	250	250
Temperature Class	105(A)	105(A)
Volume Resistivity (Ohms/cm.)	1.1×10^{12}	1.5×10^{12}
Dielectric Constant (at 1 MHz.)	2.62	2.73
Moisture Absorption (72 hrs. at 100% hu.)	2.91%	3.12%
Color (Surface)	Blue/Green	Brown/Black

General Description: Thermoform-700 is made from a polyamide paper that has superior high temperature and high dielectric qualities. Although it has the same strength and toughness of nylon 6/6, its molecular structure differs and thereby provides excellent chemical stability and resistance to deformation. The binder used in this tubing is entirely compatible in all uses for "Nomex" itself. Tubing is available in round, square and rectangular forms and can be punched, lugged and slit.

Suggested Uses: Flyback transformer coil forms and collar supports; voltage regulator transformers; primary coil forms; as bobbins in high temperature, continuous run motors; motor shaft insulators and spacers for industrial type, heavy duty tools; high temperature potting cases; heat insulators and shields; flame proofing applications.

Minimum Wall Thickness: .004"

Material Properties	Thermoform-700
Dielectric Strength - VPM (50% humidity)	720
High Temperature Range - °F.	700
Volume Resistivity - Ohm/cm. (25°C.)	10^{16}
Dielectric Constant - at 10^3 Hz	2.9
Specific Gravity91
Color	Light Tan
U/L Yellow Card No. E50630	

¹ DuPont Registered Trademark