

TW Formex®

**SCORE IT
FOLD IT
BEND IT**



DEPEND ON IT!



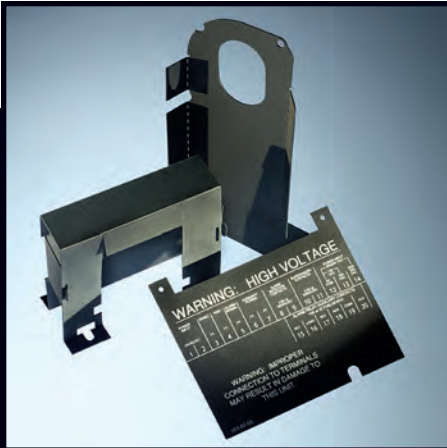
Flame Retardant Electrical Insulation and Barrier Materials

Formex™ Flame Retardant Electrical Insulation Materials

- Score and Fold to Fabricate Economical 3-Dimensional Parts
- Fold Repeatedly Without Cracking or Splitting
- High Dielectric Breakdown Strength
- UL 94 V-0 Flame Class; RoHS Compliant
- Non-hygroscopic; Superior Chemical Resistance

ITW Formex® flame retardant materials provide superior electrical insulation in industrial and consumer electronic equipment. The material is available in rolls, sheets and panels and can be easily fabricated into a wide range of shapes.

No other flame retardant, electrical insulating material can match the flexibility and performance of Formex™ for cost-effective fabricated parts. Formex™ has successfully replaced a variety of electrical papers, thermoplastic materials, and injected molded parts.



INSULATION

Outstanding dielectric strength properties.

Patented materials are easily fabricated to provide low-cost solutions.

Formex™ GS grade available for static sensitive applications.

May be used as a substrate with metal lamination for EMI/RFI shielding.

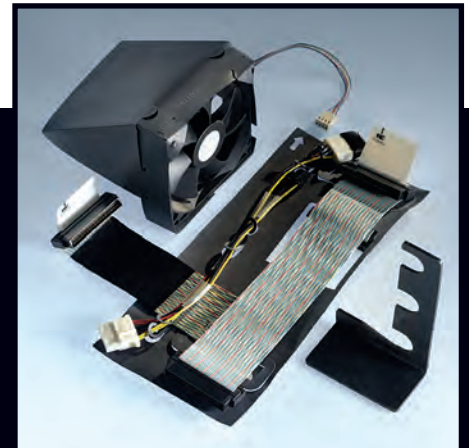


BARRIER

Formex™ materials offer superior protection due to high dielectric strength, physical strength and flexibility.

Supplied in rolls or sheets that can be printed and will accept adhesives.

Formex's unique material properties meet global standards for flame retardancy and provide superior chemical resistance.



FUNCTIONAL PARTS

Formex™ materials provide new and unique options for the design and construction of low-cost internal mechanical components.

Fabricated internal parts, such as air flow baffles and wire harness organizers, are commonly used as cost-effective replacements for plastic injection molded or sheet metal components.

Formex™ GK

Extruded Sheets – 0.005 to 0.062 in. thick (0.127 to 1.57mm)
 Superior dielectric strength
 Continuous use temperature to 115°C

Formex™ GS

ESD Protection
 Flame Retardant

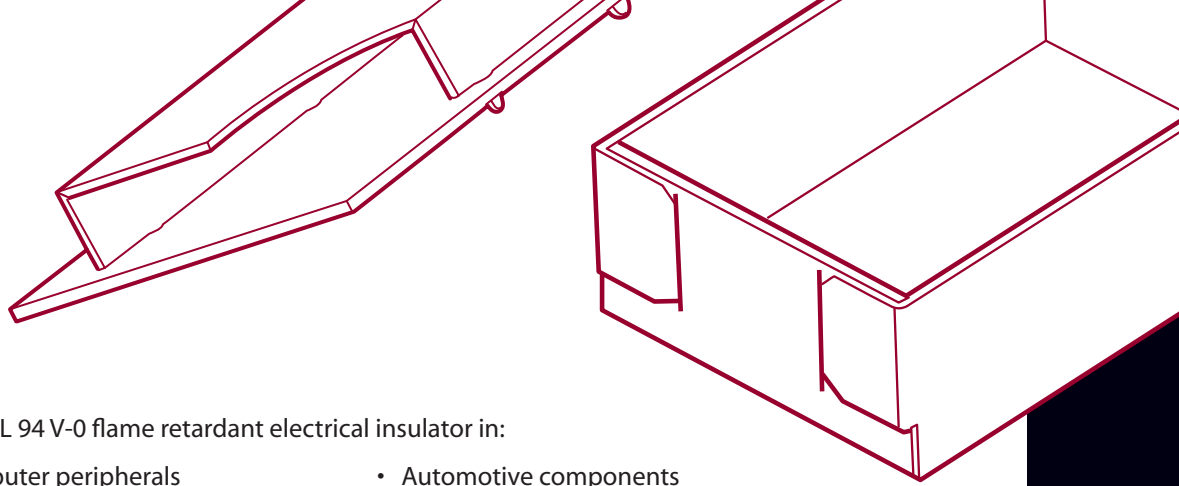
Formex™ GL

Flame retardant
 Continuous use temperature to 125°C

Formex™ N3

Halogen Free
 Flame Retardant
 Multi-Layer Polycarbonate Sheet

Note: Above sizes are standard; custom sizes also available.



Markets

ITW Formex® is a cost-effective UL 94 V-0 flame retardant electrical insulator in:

- Computers and computer peripherals
- Conventional and uninterruptible power supplies
- Electrical and power distribution systems
- Telecommunications equipment
- Medical equipment
- Automotive components
- Consumer products
- Lighting
- TVs and appliances

Processing Methods

Die Cutting Including steel rule, engraved, rotary and male/female dies.

Laser or Water Jet Cutting Advancements in technology provide rapid prototyping as well as high-speed production.

Heat Forming Low-cost tooling and a simple process combine to produce parts with permanently formed angles.

Thermoforming Produces complex, rigid, three-dimensional shapes.

Machining Materials are easily fabricated with conventional machining techniques.



Additional Processing

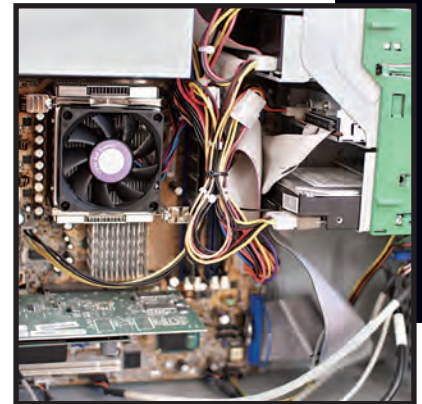
Marking Materials may be embossed or printed to display product identification, part numbers, safety messages or technical information.

Lamination Laminating with aluminum or copper foil provides EMI/RFI shielding.

Adhesives Formex® readily accepts adhesives for various applications.

Welding Formex® can be bonded to itself using conventional plastic welding techniques.

Joinery Methods Parts can be easily designed to incorporate a number of joining and fastening methods, often eliminating external fasteners.



PRODUCT ADVANTAGES & BENEFITS



UL 94 V-0 Flame Class Rating
Meets global safety standards



Non-Hygroscopic
Ultra low moisture absorption



Chemical Resistance
Maintains mechanical/electrical properties



Superior Dielectric Breakdown Strength
Shields electronics from electric surge



Excellent Score and Fold
Parts will not crack or split
Ships flat to save freight costs



Cost Effective
Lower overall part cost with thinner materials



Static Dissipative (Formex™ GS)
Dissipates static electrical charge to a ground

Global Standards

Environmental

- RoHS - Restriction of Hazardous Substances Directive (EU)

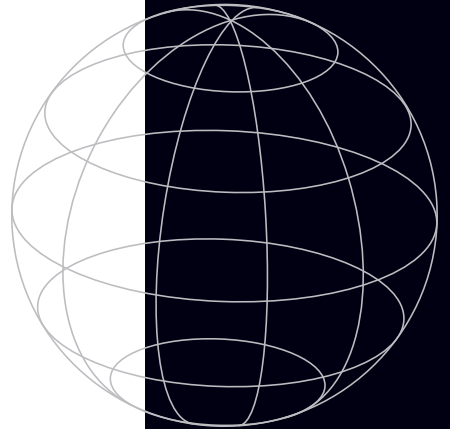
Compliance

North America	Asia	Europe
<ul style="list-style-type: none"> • UL • CSA 	<ul style="list-style-type: none"> • METI 	<ul style="list-style-type: none"> • IEC • TUV • VDE • BSR

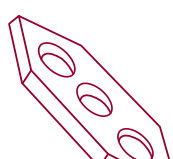
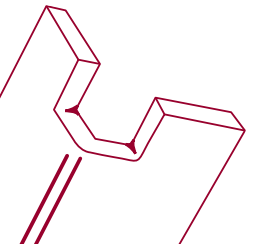
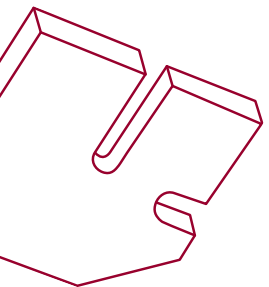


About Illinois Tool Works (ITW)

ITW businesses serve local customers and markets around the globe, with a significant presence in developed as well as emerging markets. The company has operations in 57 countries that employ more than 50,000 women and men who adhere to the highest ethical standards. These talented individuals, many of whom have specialized engineering or scientific expertise, contribute to our global leadership in innovation. We are proud of our broad portfolio of more than 17,000 granted and pending patents.



CONTACT US FOR PRODUCT SAMPLES



ITW Formex®

425 North Gary Ave. · Carol Stream, IL 60188

Phone: 630-315-2174

Fax: 630-315-2157

E-mail: info@itwformex.com

www.itwformex.com