

BUILT FOR HEAT. ENGINEERED FOR ELECTRICAL RELIABILITY.

G7 Silicone Glass Laminates Guide

HIGH TEMPERATURE. HIGH DIELECTRIC PERFORMANCE. MADE IN THE USA

Resiten® G7 laminates are engineered for **electrical and electronic insulation applications operating in sustained high-temperature environments** where long-term dielectric stability and dimensional integrity are critical.

Manufactured from **fibrous glass reinforced with silicone polymer resin**, ITEN's G7 laminates deliver dependable performance in dry electrical applications exposed to extreme heat—all produced in the USA with full vertical integration and quality control.

When insulation must maintain electrical performance after prolonged exposure to elevated temperatures, G7 is the material engineers trust.

Specification Compliance

- NEMA G9
- MIL-I-24768/17 (GSG)

Why G7 Laminates?

G7 is designed for environments where **thermal endurance and dielectric consistency** are essential to system reliability. Unlike many laminate grades that lose performance over time in elevated temperatures, G7 maintains stable electrical properties even after long heat exposure—making it ideal for high-temperature insulation applications where failure is not an option.

Why G7 Laminates?

High Dielectric Strength

Provides dependable electrical insulation in demanding electrical and electronic systems.

Exceptional Thermal Resistance

Withstands temperatures exceeding 465°F—the highest temperature resistance of any NEMA-grade laminate.

Stable Electrical Properties

Maintains permittivity and low dissipation factor even after extended heat exposure.

Dimensional Stability

Glass-reinforced construction resists warping and maintains structural integrity under thermal stress.

Long-Term Reliability

Engineered to reduce degradation, minimize downtime, and extend service life in dry electrical environments.

When G7 Is the Right Choice

G7 is ideal for applications requiring:

- Sustained high-temperature insulation performance
- Reliable dielectric strength over time
- Stable electrical properties in dry environments
- Compliance with NEMA and military specifications

G7 is commonly selected when flame resistance is not the primary requirement but thermal endurance and electrical reliability are.

G7 Silicone Glass Laminates Guide

BUILT FOR HEAT. ENGINEERED FOR ELECTRICAL RELIABILITY.

Common G7 Applications

- Electrical insulators
- Terminal boards
- High-temperature insulating components
- Switchgear insulation
- Transformer insulation systems
- Electrical panel components
- Custom-machined electrical insulation parts

Material Specifications at a Glance

Product Name	Base Material	Specification Grade	Thermal Capability
Resiten® G7	Fibrous glass with silicone polymer resin	<ul style="list-style-type: none">• NEMA G9• MIL-I-24768/17 (GSG)	Withstands temperatures exceeding 465°F
Electrical Properties	Available Sheet Sizes	Available Formats	
<ul style="list-style-type: none">● High dielectric strength● Stable permittivity● Low dissipation factor	<ul style="list-style-type: none">● 36 in × 48 in● 48 in × 48 in Multiple stock thicknesses available.	<ul style="list-style-type: none">● Sheet Stock● Machined Components● Custom Fabricated Parts	<ul style="list-style-type: none">● Punched Parts

What Sets G7 Apart?

G7 offers the **highest temperature resistance of any NEMA-grade laminate**, making it the preferred solution for applications where prolonged heat exposure would compromise other materials.

Its silicone-glass construction delivers consistent electrical performance, dimensional stability, and long-term reliability—reducing the risk of material breakdown in critical insulation systems.

Made in the USA: Manufactured in Ashtabula, Ohio for reliable, tariff-free supply and consistent quality.

Vertically Integrated Manufacturing: From resin to laminate sheet to fabricated part, all under one roof.

Engineering Support: Work directly with ITEN's technical experts to select materials and optimize designs.

Sheet or Finished Part: Order raw laminate or fully machined and punched components from one trusted partner.

Proven Experience: Over 100 years supporting American industry with engineered material solutions.

Need G9 Laminates You Can Count On?

When your application demands insulation that performs under heat and holds up over time, Resiten® G7 delivers.

Request a quote or connect with an ITEN engineer to discuss your application today.