G3 Glass Phenolic Laminate

High-Temperature Phenolic

G-3 phenolic is a high performance material comprised of glass fabric impregnated with a binding phenolic resin. It is known for retaining its mechanical properties at higher temperatures. It offers superb impact, tensile, compressive, and flexural strengths in addition to high creep resistance. G-3 phenolic is best used in low-moisture environments. This material sees use in several industries, including the aerospace and appliance industries.

G-3 phenolic is also known as NP-504.

Applications and Uses

G-3 phenolic is used to make acid resistant parts, including seals and gaskets in the aerospace industry. Parts manufactured from G-3 benefit from high heat resistance. This allows G-3 based parts to be used for internal parts in ovens and other applications where a combination of good mechanical properties and heat resistance are necessary.

G-3 phenolic meets the requirements for Mil-I-24768/18, Type GPG.

- Seals
- Gaskets & grommets
- Relays
- Internal parts for ovens
- Aerospace seals and gaskets
- Structural applications



Max sheet size: 36" x 48" (.125" to 2" thicknesses)

	GLASS PHENOLIC G3
Military / Fed Spec	Mil-I-24768/18 Type GPG
SPECIFIC GRAVITY	1.85
TENSILE STRENGTH (psi)	42,000
COMP. STRENGTH (psi)	76,000
FLEXURAL STRENGTH (psi)	55,000
HARDNESS, M SCALE	110
BOND STRENGTH (psi)	1,500
SHEAR STRENGTH (psi)	18,000
DISSIPATION FACTOR 10 ⁶ cycles, Cond A	0.023
DIELECTRIC CONSTANT 10 ⁶ cycles, Cond A	7.30
ELECTRIC STRENGTH V/MIL Cond A	600
FLAMMABILITY RATING	94HB
MAX OPER. TEMP°C/F	140/284
COEFF. THERMAL EXP. IN/IN/℃ X 10-5	1.00
WATER ABSORPTION % - 24 hrs	2.00
lzod Impact Strength (ft/lb/in) @49°C	12.00

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WARNING: This product can expose you to chemicals, which are known to the State of California to cause cancer, birth defects, and/or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

