

TECHNICAL BRIEF

The One-Source Solutions Provider
DESIGN | FORMULATE | COMPOUND | MOLD | FINISH
Thermoset Composites

Electrical Applications



Mar-Bal provides materials engineering and compounding fully controlled by our in-house, state-of-the-art laboratory. Our engineered composite materials, including UL® recognized formulations, have excellent performance characteristics which makes them well suited for a wide variety of electrical applications.

Mar-Bal's material engineering team can customize a material to fit your application and meet your exact specifications.

Thermoset composites have outstanding electrical insulation including:

- Arc Resistance
- Track Resistance
- High Dielectric Strength
- Ability to Quench

Mar-Bal's mechanical engineering team can design a custom part to meet demanding and hostile environments. The designs will maximize molded dimensional accuracy and deliver:

- Tight tolerances
- Repeatable moldings
- Low-post shrinkage



Switchgear Motor Controls Standoff Insulators Control System Components Circuit Breakers Arc Chutes
Arc Shields Terminal Blocks Terminal Boards Metering Devices Bus Supports Lighting Components



Headquartered in Chagrin Falls, Ohio, Mar-Bal is a compounder and molder of thermoset composite products. Since 1970, Mar-Bal has engineered and manufactured quality, customized materials and parts. Mar-Bal serves the appliance, electrical and industrial marketplaces from its four facilities in North America.

Mar-Bal, an ISO 9001:2008 registered company, has a portfolio of brands and proprietary products, and continues to develop innovative products while maintaining a commitment to client satisfaction and total value.

Contact Mar-Bal today and learn how thermoset composites can be a solution for you.

For more information about capabilities and innovative solutions including injection, compression and transfer molding of BMC, SMC, polyester, phenolics and epoxy, contact Mar-Bal.

440-543-7526 **mar-bal.com**

**Appliance | Electrical | HVAC
Transportation | Industrial**

Today's Electrical Switchgear applications require materials that are able to flow and fill complex geometries and deep drawn ribs for parts consolidation and function.

High voltage electrical "Interrupt" testing requires demanding mechanical properties and designed in structural ribbing to combat bus bar movement.

Excellent dielectric strength, combined with arc and track resistance provide safety and reliability.

A rigorous review of design intent and function for each application allows for optimized designs for high strength function and material use.



Thermoset Composites can be designed to withstand the harsh environments found in Electrical Transformer and Switchgears.



Many Mar-Bal formulations and products are tested to and listed with UL® for Fire and Electrical Safety Standards.

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