ALLIED MOULDED PRODUCTS, INC.

Specialists in Composite Materials

Founded in 1958, Allied Moulded has over 50 years of knowledge and experience molding fiberglass reinforced materials. Allied Moulded is well established within the electrical industry as a quality manufacturer of non-metallic electrical products.

Today, Allied Moulded manufactures a full line of fiberglass enclosures offering all the advantages of non-metallic materials including: increased strength, reduced weight, corrosion resistance, non-conductivity, cost savings and ease of installation. These enclosures have been put to the test in hundreds of demanding applications and dozens of industries worldwide. Our commitment to quality and innovation is well known throughout the electrical industry.

New Manufacturing Facility/ Expanded Product Line

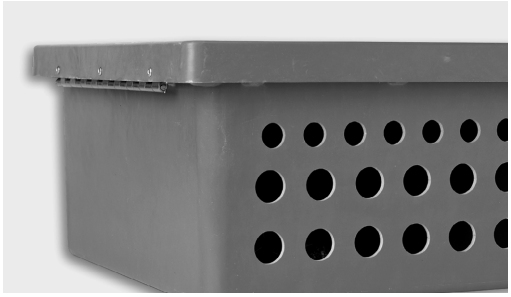
Allied Moulded owns and operates the newest production facility in the United States entirely dedicated to manufacturing fiberglass enclosures. This significant investment reflects our long term commitment to the industry, and meeting your needs. Our line of NEMA Type 4X fiberglass enclosures is continually expanding to ensure our range of sizes, options and features provides maximum protection where you need it most.

Integrated for Exceptional Efficiency

Allied Moulded is vertically integrated for optimum efficiency and control. We formulate our own fiberglass reinforced polyester material, thus it meets our strict quality specifications. From mold design to product fabrication, warehousing to delivery, we handle every aspect of the manufacturing and distribution process. Because everything's done on-site, we're able to produce a high quality product with a significantly reduced turnaround time.

Sizes and Options for Every Application

Every enclosure application has different requirements for size, durability, access, security, and visibility of controls. Allied Moulded offers an extensive variety of sizes, cover options, latch options, back panels, windows and accessories you can combine to create the perfect enclosure solution for any application.



Modifications are our Middle Name

Not only do we offer a full line of standard products from small junction boxes to free-standing cabinets, we're pleased to customize our enclosures to suit your needs. Our on-site operations mean Allied Moulded is equipped to modify any of our standard products with the custom holes or cutouts, windows, EMI/RFI shielding, silk screening or special colors your application requires. We have the lowest volume requirements in the industry, and most modification requests can be fulfilled in less than three weeks.

Your One-Stop-Shop for Quality, Variety, Service & Support

Thanks to our centralized location, integrated delivery system and nationwide sales network, our quality products are backed up by exceptional service and reliable, on-time delivery. Together with our sales agents throughout the country, the Allied Moulded inside sales and engineering team is readily available to assist you with the sales and technical support you need for any project or application. No matter what sizes, options or modifications you're looking for, Allied Moulded is truly your one-stop enclosure shop.

RoHS COMPLIANT

c UL us

C SA US

ULTRAGUARD®
Fiberglass Material • Superior Protection • From Allied Moulded Products

ULTRAGUARD® MATERIAL FORMULATION

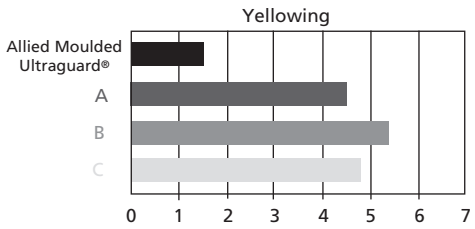
Ultraguard® -- Allied Moulded's new proprietary fiberglass reinforced polyester material formulation.

Allied's Materials Research and Development laboratory successfully optimized ingredients to create a formulation with the ability to resist the effects of UV degradation. The formulation was developed through the effective use of UV absorbers that provide protection by physically absorbing light in specific ranges of wavelengths, HALS (Hindered Amine Light Stabilizers), and antioxidants. Together, all three classes of stabilizers provide specific protection to modes of failure associated with outdoor exposure.

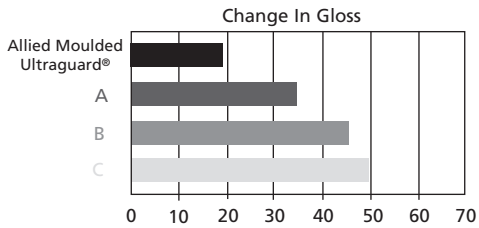
ULTRAGUARD® VERSUS THE COMPETITION

Allied's new Ultraguard® formulation out performed materials used by three leading fiberglass enclosure manufacturers. The following four key areas were benchmarked, with Ultraguard® easily coming out on top:

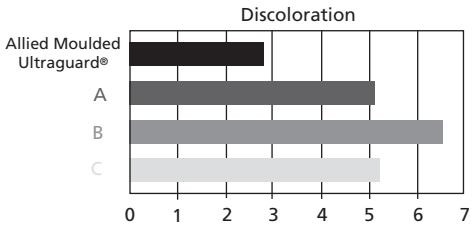
Yellowing (Delta b-change from original)
65-70% improvement over leading competitive enclosure manufacturers.



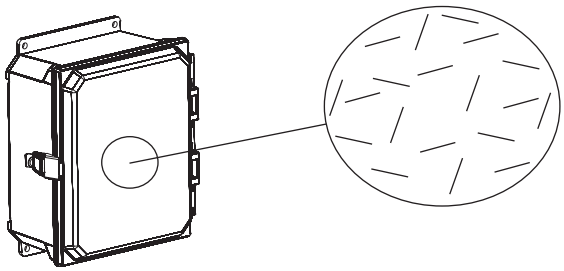
Change In Gloss (% change from original)
44-62% improvement over leading competitive enclosure manufacturers.

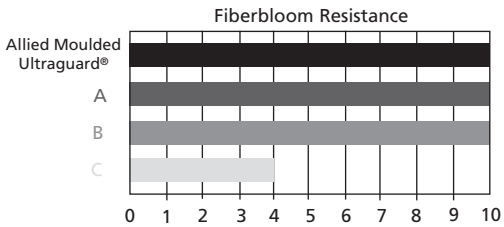


Discoloration (Delta E-change from original)
44-57% improvement over leading competitive enclosure manufacturers.



Fiberbloom resistance (change in aesthetics and texture)
60% improvement over one competitor.
Equivalent results compared to two remaining competitors.





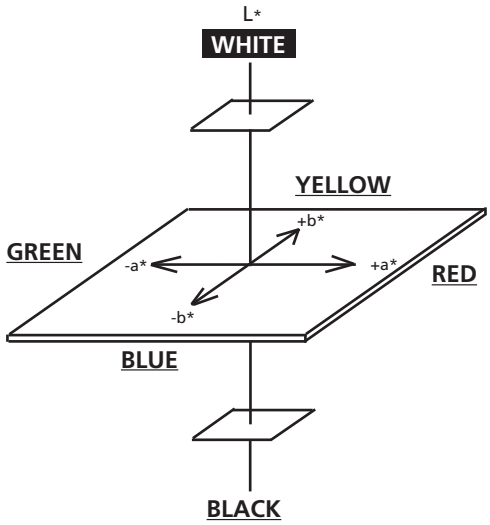
ULTRAGUARD® Fiberglass Material • Superior Protection • From Allied Moulded Products

ULTRAGUARD® - HOW IT BENEFITS CUSTOMERS

Allied Moulded's new Ultraguard® formulation, while retaining its already robust structural integrity, now has an enhanced surface finish with improved aesthetics. Based upon customer feedback, Allied Moulded recognized an increased number of customer applications requiring outdoor capability and the related challenges to non-metallic enclosure designs. This is why Allied Moulded chose to invest in continuous improvement of our material formulations. Customer applications often require enclosures to be mounted on expensive systems where aesthetic appearance is critical. Changes in enclosure color, texture, and gloss in these applications are not acceptable. Fiberbloom, for example, not only is aesthetically unattractive, but can also be an issue if people come in physical contact with the enclosure surface. Literally defined, fiberbloom is degradation of the polyester compound surface during long-term outdoor exposure, resulting in the eventual exposure of glass fibers. Fiberbloom does not affect the structural integrity or NEMA rating of the enclosures.

ULTRAGUARD® - HOW THE RESULTS WERE PROVEN

Allied Moulded's Materials R&D lab team accepted the continuous improvement project challenge of finding a synergistic combination of compounds that would improve material resistance to color change, gloss change, surface degradation, and exposure of surface glass particles. They successfully met the challenge of maintaining standard material characteristics: UL 94 5V flame test standards and RoHS directive (Restriction of Hazardous Substances). The new formulation also does not contain antimony or halogens, which reduce the risk of smoke borne toxicity. Allied's research and development lab replaced subjective test results found in normal field testing with objective test results that were achieved with industry accepted lab equipment. Internal lab tests and outsourced "Independent Lab" testing (Q-lab Weathers Research Service) was conducted with a QUV accelerated weathering tester. Gloss readings were recorded using a BYK Micro Tri-Gloss machine and color data was recorded using a Hunter Lab ColorQuest sphere instrument. All test results were obtained and reported per ASTM & ISO standards.

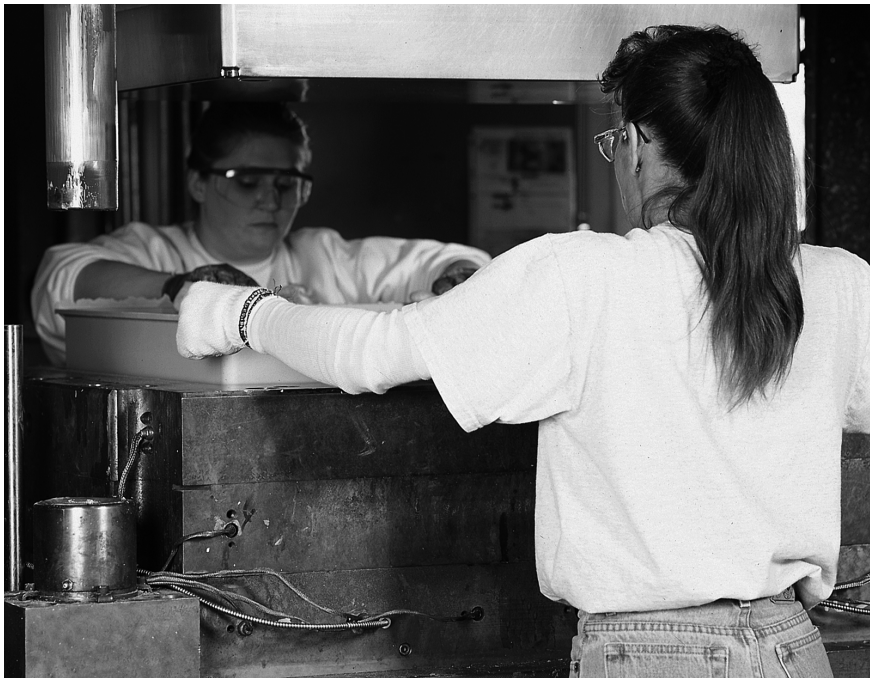


L* a* b* Color Space - Instrumental color readings utilize three numbers to describe a color baseline.

ULTRAGUARD® VERSUS STEEL ENCLOSURES

While outdoor exposure appears to present problems for non-metal enclosures, there are many other reasons why non-metal enclosures are strongly preferred and why they actually provide better solutions. Weight, corrosion, ease of modification, resistance to dents and loss of seal integrity are all key issues that must be considered when choosing between non-metal and steel enclosures. Ultraguard® FRP is the preferred alternative.

RoHS COMPLIANT



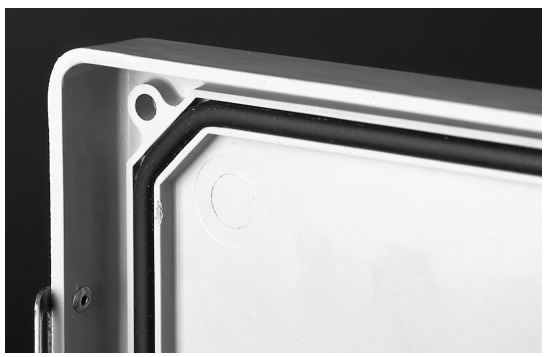
THE FIBERGLASS ADVANTAGE

Fiberglass—The Superior Enclosure Material

Allied Moulded fiberglass enclosures are fabricated from our own proprietary Ultraguard® formulation. This material provides superior performance and protective properties in a wide variety of environments. Please make reference to our performance comparison chart of enclosure materials on page 9.

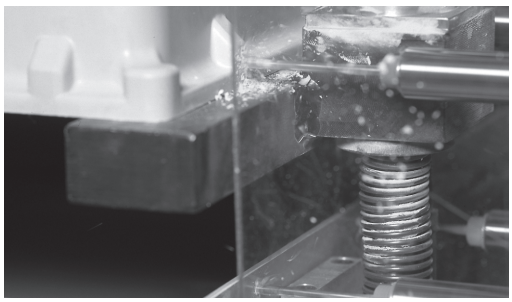
Beyond Meeting Standards to Exceeding Expectations

Of course, Allied Moulded fiberglass enclosures are designed and regularly tested to meet stringent UL® and CSA® specifications, but we don't stop there. Our full line of corrosion-resistant, maintenance-free fiberglass enclosures is designed to provide optimum protection in the harshest environments, from water treatment facilities and irrigation systems to oil refineries and chemical processing plants.



Outperforming the Alternatives

Fiberglass reinforced polyester (FRP) offers significant benefits over metal enclosures such as carbon and stainless steel.

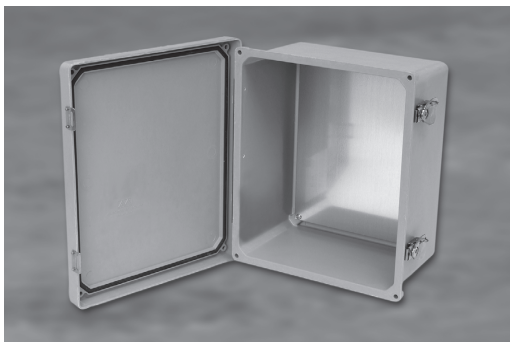


Compare them and you'll discover that fiberglass reinforced polyester enclosures are:

- Lighter and easier to handle
- Strong enough to hold up under extreme conditions
- Equal to stainless steel in corrosion and chemical resistance, and far better than carbon steel
- Non-conductive—an electrical insulator rather than electrical conductor
- Much easier to punch, drill or saw
- Less expensive to ship

Allied Moulded enclosures also outperform other non-metallic alternatives in areas such as:

- Chemical resistance
- Protection against degradation due to UV exposure
- Resistance to extreme temperatures
- Flame retardant properties



Take the time to compare the cost, quality and performance of our fiberglass reinforced polyester products and you'll see why we say Allied Moulded has the superior enclosure solutions.

Performance Comparison of Enclosure Materials

	Fiberglass	Stainless Steel	Carbon Steel	PVC	Polycarbonate
Corrosive Resistance	Excellent	Excellent	Poor	Excellent	Fair
Chemical Resistance	Excellent	Excellent	Poor	Very Good	Good
Relative Cost	Low	High	Low to Moderate	Low	Low to Moderate
Drilling, Punching & Cutting	Very Easy	Extremely Hard	Hard	Very Easy	Easy
Dielectric Strength	Electrical Insulator	Electrical Conductor	Electrical Conductor	Electrical Insulator	Electrical Insulator
Weight	Light	Heavy	Heavy	Light	Light