

# ALLIED MOULDED PRODUCTS, INC.

APPLICATIONS & CAPABILITIES GUIDE



**ALLIED  
MOULDED  
PRODUCTS, Inc.**

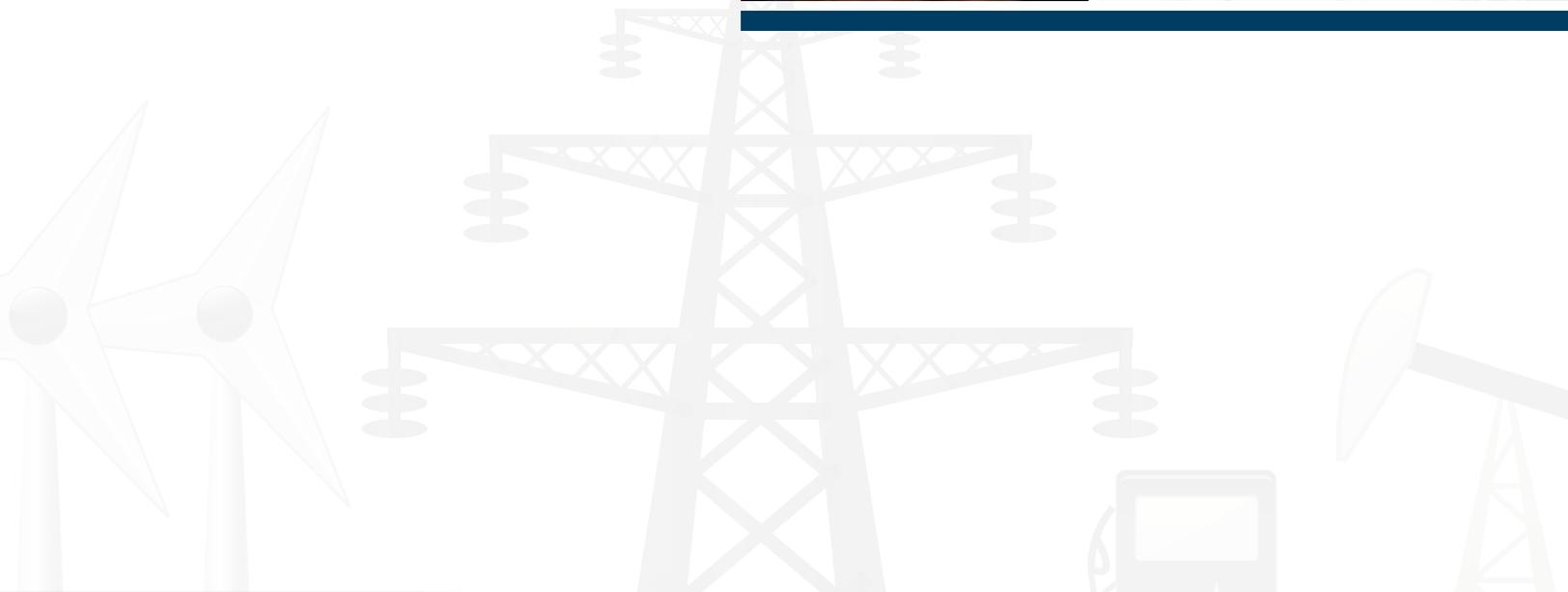
FIBERGLASS AND POLYCARBONATE ENCLOSURES



## We'll work with you.

Our responsiveness to you goes beyond offering a quality product line. Valuing the relationships we have built with each customer, we work with you as partners to solve your protection requirements.

From product design to quick, on-time delivery, Allied Moulded provides fast, efficient service to meet your specific needs.





# We are Allied Moulded.

Founded in 1958 and backed by more than 60 years of knowledge and experience molding nonmetallic materials, Allied Moulded Products, Inc. is well established within the electrical industry. We're committed to providing products that prevent damaging elements such as water, salt, chemicals, and UV from threatening your equipment. Our line of NEMA Type 4X, IEC Type IP66 fiberglass and polycarbonate enclosures provides maximum protection where you need it most.

Centrally located in the heart of the country, Allied Moulded is unique among enclosure manufacturers as we are vertically integrated from mold design and fabrication to product delivery. With one of the newest production facilities in the United States dedicated to manufacturing nonmetallic enclosures, we formulate our own ULTRAGUARD® fiberglass reinforced polyester material, which allows us to control quality and costs. On-site molding, assembly, and warehousing enables us to produce a high quality product while delivering quick turnaround on standard orders. We can also provide timely delivery on complete modification work, including holes, cutouts, and special colors.

Together with our sales agents throughout the country, the Allied Moulded sales and engineering team is readily available to assist you with sales and technical support. Whether you need a standard or modified product, Allied Moulded is truly a one-stop shop for your nonmetallic enclosure and accessory needs.

## We've got you covered!

With sizes ranging from our 4" x 4" x 3" to the impressive 72" x 49" x 25" double door freestanding cabinet, we've got a full product line in a wide variety of choices. All nonmetallic enclosures carry UL®, NEMA and CSA Type 4X, and IEC 60529 Type IP66 ratings. Some JIC products secured with 4-screw-down covers carry Type 6P/IEC 60529 IP68 ratings.



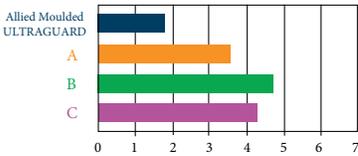
# ULTRAGUARD®

## We'll protect you ...

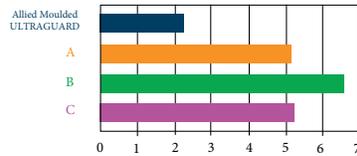
You can count on our fiberglass reinforced polyester enclosures to protect your most critical electrical components and deliver high performance when compared to other nonmetallic enclosures.

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

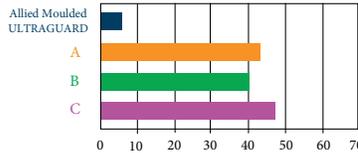
### Yellowing



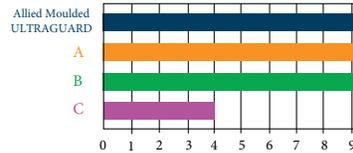
### Discoloration



### Change in Gloss



### Fiberbloom Resistance



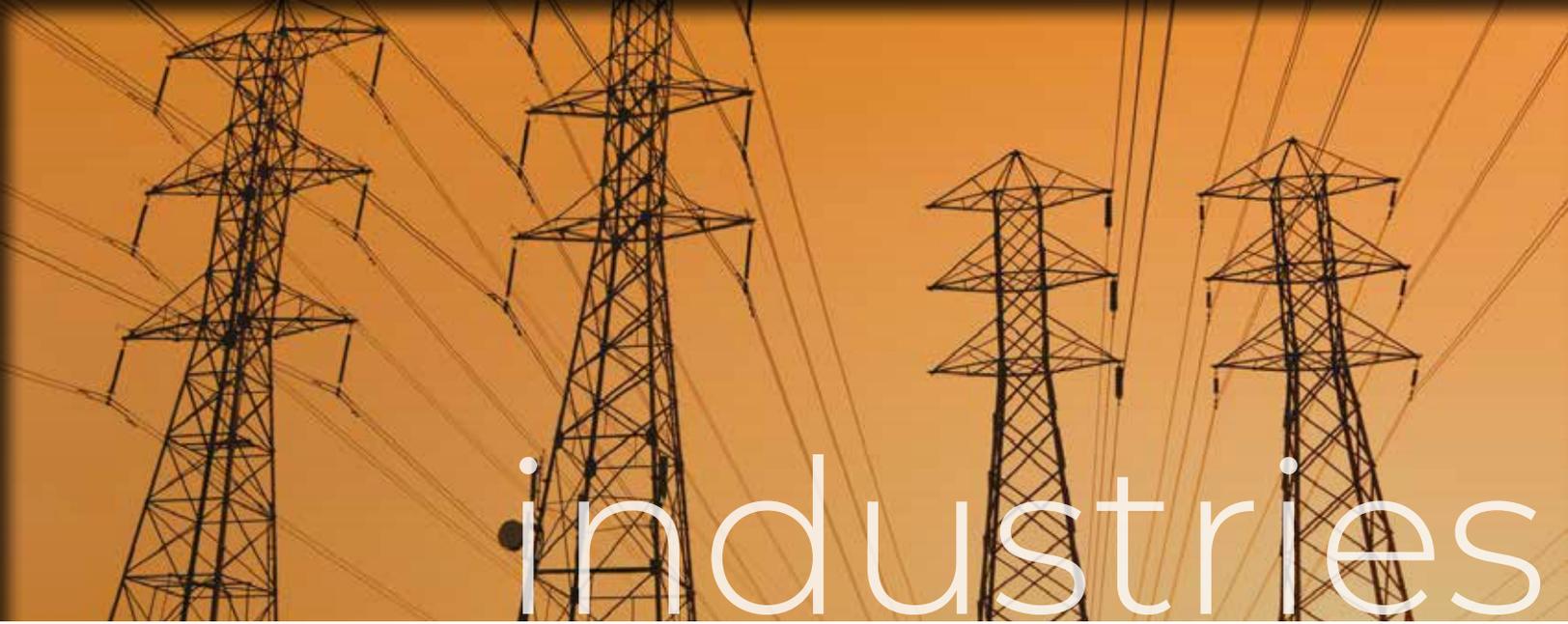
## Why Allied Moulded Enclosures?

When you need durability, ease of handling and customizing options, we've got you covered. Our impact resistant, maintenance-free fiberglass enclosures are designed to protect against the toughest elements in the harshest environments. Compared to metals, such as carbon and stainless steel, fiberglass also offers the following advantages:

- Lightweight and easy to handle, yet strong enough to hold up under extreme conditions
- Corrosion and chemical resistance well exceeding that of carbon steel and very similar to stainless steel
- Non-conductive electrical insulator rather than electrical conductor
- Easily punched, drilled or sawed for simple modifications
- Fiberglass enclosures offer significant savings vs. stainless steel, both in material and shipping costs

Compare fiberglass with other metallic and nonmetallic materials. Our fiberglass enclosures assure proven quality performance while offering considerable advantages over other enclosure alternatives. Review the comparisons and you'll find Allied Moulded fiberglass enclosures are the best choice for your application.

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



# industries



## Wide range of industries

Allied Moulded nonmetallic enclosures can be found in a multitude of industrial applications all over the world. The design features of Allied Moulded's nonmetallic enclosures, together with their inherent corrosion resistance, provides a solution to a wide array of application problems.

### Waste Water Treatment

- Odor control
- Grinder pump controls
- Chemical injectors
- Sludge conditioners
- Desalination controls
- Wireless communications
- SCADA systems

### Car Wash Industry

- Chlorinators
- Water recycling
- Air door controls
- Washing equipment
- Control panel systems

### Pump Original Equipment Manufacturers

- Flow controls
- Flow metering
- Liquid level controls
- Equipment recorders

### Utilities/Energy/Security

- Gas detectors
- Coal analyzers
- Air pollution monitors
- Petrochemical analyzers
- Wireless communications
- SCADA systems
- Solar panel battery storage
- Solar DC combiner boxes
- Wind turbine control panel

### Mining

- Radio phones
- Elevator controls
- Air monitoring analyzers
- Emergency lights and sirens

### Oil & Gas

- Alarms and surveillance
- Motor Controls
- Process control panels
- Electrical junctions



*Don't see the application you're looking for? Call our sales specialists to discuss your specific requirements!*

# our product line



## AM Series Small Junction Fiberglass Boxes

Designed for rugged surface mount applications and remote pendant applications. These small enclosures are often used as a junction box for power or with pushbutton controls installed. Allied Moulded's small junction box enclosures come standard with back panel bosses and inserts for back panel installations.

### Size Range

7" x 4" x 3" (178mm x 102mm x 76mm)  
 - up through -  
 9" x 4" x 3" (229mm x 102mm x 76mm)

### Features & Benefits

- Stainless steel captive cover screws and mounting feet
- Formed-In-Place polyurethane gasket
- Threaded inserts installed for optional back panel



## AM Series Pushbutton Fiberglass Enclosures

Developed for system control interface applications where multiple pushbutton control devices are used in various control applications.

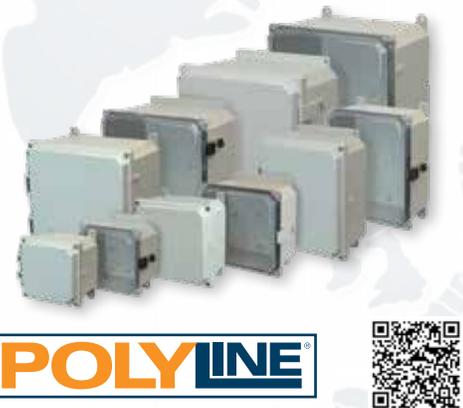
### Size Range

7" x 4" x 3" (178mm x 102mm x 76mm)  
 - up through -  
 18" x 16" x 8" (457mm x 406mm x 203mm)

Enclosure sizes range from one-hole up through a forty-two hole design and they come standard with 30.5mm holes or optional 22.5mm holes.

### Features & Benefits

- 17 hole configurations available
- 30.5mm hole cut-out standard
- Formed-In-Place polyurethane gasket
- Stainless steel captive cover screws



**POLYLINE**

## AMP Series Polycarbonate Enclosures

The AMP polycarbonate series was developed primarily for general purpose industrial applications as an alternative to steel enclosures. The design of this product group is similar to the ULTRALINE® series and includes a provision for adjustable HFP (hinged front panel) position.

### Size Range

4" x 4" x 3" (102mm x 102mm x 76mm)  
 - up through -  
 20" x 16" x 10" (508mm x 406mm x 254mm)

### Features & Benefits

- Engineering grade thermoplastic - injection molded polycarbonate
- Flush cover-to-base design
- Patented multi-mounting capability
- 316 stainless steel foot/flange mounting screws
- Solid opaque or clear polycarbonate cover options
- Partial molded hinges, providing secure cover-to-base closure
- Formed-In-Place polyurethane gasket
- Mounting panel inserts for optional back panel installation

\* U.S. Pat No. 7,572,975



**ULTRALINE**



## AMU Series Fiberglass Enclosures

This fiberglass product family from Allied Moulded was developed primarily for OEM (Original Equipment Manufacturer) panel builder applications also requiring JIC sizes. ULTRALINE® enclosures are built to provide durability in your toughest application requirements.

### Size Range

6" x 6" x 4" (152mm x 152mm x 102mm)  
- up through -  
20" x 16" x 10" (508mm x 406mm x 254mm)

### Features & Benefits

- Molded with ULTRAGUARD® fiberglass reinforced polyester material construction for durability
- Cover-to-base design - flush, aesthetically pleasing architecture
- Patented multi-mounting capability
- 316 stainless steel foot/flange mounting screws
- Partial molded hinges, providing secure cover-to-base closure
- Formed-In-Place polyurethane gasket
- Mounting panel inserts for optional back panel installation

\* U.S. Pat No. 7,572,975



## AM & AM-R Series Flat & Raised Cover JIC Fiberglass Enclosures

Designed for UL listed panel builder OEM customers, AM series enclosures can be found in many corrosive environment applications, indoor and outdoor, where they are exposed to extreme temperatures, UV rays, and corrosive chemicals. The lightweight FRP (fiberglass reinforced polyester) material formulation offers many advantages over stainless steel and thermoplastic constructed enclosures.

### Size Range

6" x 6" x 4" (152mm x 152mm x 102mm)  
- up through -  
20" x 16" x 8" (508mm x 406mm x 203mm)

### Features & Benefits

- Molded with ULTRAGUARD® fiberglass reinforced polyester material construction for durability
- Continuous 316 stainless steel hinge
- Matching raised cover
- Formed-In-Place polyurethane gasket
- Mounting panel inserts for optional back panel installation



## AM-R CONTROL Fiberglass Enclosures

Designed for wall mount applications where system integrators require the enclosure to house and protect many critical control components. Open space inside the Allied Moulded control enclosures has met the demand for innovative panel designs in various industrial applications including waste water treatment, oil & gas, solar & wind power, chemical formulation and general communications.

### Size Range

24" x 20" x 8" (610mm x 508mm x 203mm)  
- up through -  
30" x 24" x 10" (762mm x 610mm x 254mm)

### Features & Benefits

- Stainless steel hinges, lockable latches and mounting hardware
- Raised cover allowing for HFP (hinged front panel) installation and additional 1 3/4" (44.5mm) height for more space under the cover
- One-piece body construction provides added dimensional stability
- Formed-In-Place gasket system
- Matching raised cover
- Various Latching Options Available



## Empire Series Wall Mount Fiberglass Enclosures



Designed for rugged, industrial, large scale wall mount applications. Empire enclosures may be used where contractors are looking for an enclosure that is lighter in weight for easier installation and simple to access cabinet doors for easier service capability. Empire enclosures come with optional twist latch or 3-point latching cabinet doors. Most Empire wall mount enclosures are manufactured with an RTM (resin transfer molding) process for both their bodies and doors.

### Size Range

36" x 30" x 12" (914mm x 762mm x 305mm)  
- up through -  
60" x 36" x 16" (1,524mm x 914mm x 406mm)

### Features & Benefits

- Durable, corrosion resistant gel-coat fiberglass material construction
- Resin Transfer Molded (RTM) doors and box construction
- Molded-in mounting flanges
- Soft, self-gripping EPDM gasket compresses over flange for tight seal
- Heavy-duty continuous 316 stainless steel hinge

Note: AMEC363012T is compression molded



## Empire Series Free Standing Fiberglass Enclosures



Designed for large cabinet installations for major industrial power and communication applications, freestanding Empire series cabinets are available in single or double-door sizes to accommodate your specific application and come standard with an innovative lockable 3-point latching door handle system for easy cabinet entry and sufficient sealing to achieve NEMA 4X rain tight applications.

### Size Range

Single Door  
72" x 25" x 25" (1,829mm x 635mm x 635mm) and  
Double Door  
72" x 49" x 25" (1,829mm x 1,245mm x 635mm)

### Features & Benefits

- Durable, corrosion resistant gel-coat fiberglass material construction
- Resin Transfer Molded (RTM) doors and hand-layup box construction
- Soft, self-gripping EPDM gasket compresses over flange for tight seal
- 316 stainless steel 3-point latching handle with padlocking provision
- Heavy-duty continuous 316 stainless steel hinge
- Heavy duty lifting eye bolts

## Find product specs on our website ...

Looking at a specific enclosure? We've made it easier than ever to access the information you need, whenever and wherever you need it.

- Download and save product specification pages in PDF format
- View and download high quality images for every product and accessory
- Download CAD models and 2D PDF drawing files for every product
- Access our entire library of PDF catalog files, inspector documents and technical data information
- Use our new search function to easily navigate your way to specific part numbers and information



# accessories

Enclosure Hole Plugs | HMI Covers | Inspection Windows

Back Panels | Hinged Front Panels | Vent Kits | Pole Mount Kits | Keylock Kit | Carrying Handles | Print Pockets



## ULTRAPLUG®



### Polycarbonate Enclosure Hole Plugs

ULTRAPLUG® hole plugs are designed to plug and seal unused holes in metallic, aluminum and nonmetallic enclosures. They fit a wide range of sizes, and feature an anti-rotational design, ensuring quick and simple one-person nut assembly with no tools required for tightening!

#### Size Range

½" up through 4-¾"

#### Features & Benefits

- Two colors: light gray RAL 7035, and dark gray ANSI 61
- Patented design: US patent 9,045,932
- Recognized component for use with UL and CSA listed enclosure products
- Low profile interior nut and exterior plug saves valuable panel space

AMVENT4XLG



### Ventilation Kits

Ensure the equipment inside your enclosure doesn't overheat with ventilation kits. Now NEMA 4X rated and UL listed to provide rain tight protection for your enclosure application.



### HMI Cover Kits

Allied Moulded's HMI Cover Kits are designed to provide protection for instruments or electronics requiring routine attention or detail. The cover kit features a strong and rigid design, mounting securely to the outside of any enclosure option, and makes accessibility to electronic components easy!

#### Size Range

6" x 6" - up through - 20" x 16"

#### Features & Benefits

- Clear polycarbonate thermoplastic, or polycarbonate for opaque covers
- UV stabilized for outdoor use
- Formed-In-Place polyurethane gasket
- 316 stainless steel hinge pin
- #10-32 threaded brass inserts with plated steel mounting fasteners



### Inspection Windows

Inspection window kits are designed to provide visibility and easy viewing access to equipment and components installed in an enclosure, while maintaining NEMA Type 4X ratings. The window kit features a strong and rigid design, securely mounting to the outside of most enclosure designs!

#### Size Range

6" x 6", 9" x 5.5", 13" x 8"

#### Features & Benefits

- Clear polycarbonate thermoplastic
- UV stabilized for outdoor use
- Formed-In-Place polyurethane gasket
- Convenient sizes for easy viewing access in a variety of applications
- #10-32 threaded brass inserts with plated steel mounting fasteners



### Hinged Front Panels

Use our field-installable hinged front panels for mounting display devices and provide a safety barrier to important components.



### Back Panels

Mount your specific electronic components to aluminum, steel, PVC, galvanized, or fiberglass back panels.



#### Learn more!

Scan the QR code to learn more about all of our enclosure accessory options!



# custom modifications

Custom Holes & Cutouts | Molded-In Color Matching | Custom Printing | EMI/RFI Shielding

Back Panels | Hinged Front Panels | Windows | Metalwork | Nonmetallic Hinges | Tamper-Proof Screws  
Countersinking | Latches | Keylocks | Handles | Vents | Drain Plugs | & Much More!

## Designed & crafted just for you ...

### CUSTOM MODIFICATIONS TO FIT YOUR NEEDS

We understand your business is application-driven, so we work with you to design the exact enclosure you need. Allied Moulded begins with a range of materials, colors, and sizes. Then, our special order team helps you integrate cut-outs, silk screen printing, or complementary accessories to ensure each enclosure meets your unique requirements.



#### CUSTOM HOLES & CUTOUTS

We incorporate computer controlled manufacturing equipment into our operation, ensuring specialty holes and cutouts are exact to your specifications. Custom holes allow for conduit entry or device mounting to meet the needs of any application including; Pushbuttons, cable entry, HMI components, viewport/viewing windows, and much more!



#### MOLDED-IN COLOR MATCHING

Modify your enclosures with custom colors, matched from a variety of specific Pantone® or RAL numbers. Color matching is available for both fiberglass and polycarbonate enclosures for your application needs. Refer to our website for minimum order quantities and requirements.



#### CUSTOM PRINTING

Custom printing is a practical, professional way to identify your corporate image or enclosure function. We have the ability to print business or device names, identify important component controls, or display important logos, and can accommodate your application needs.

# Conformance to Industry Standards

Industrial enclosures manufactured by Allied Moulded and bearing the UL labels have been tested and certified to the following standards:

- UL 50 Enclosures For Electrical Equipment
- UL 50E Enclosures For Electrical Equipment, Environmental Considerations
- UL 508A Industrial Control Panels
- UL 746C Polymeric Materials – Use In Electrical Equipment Evaluations
- UL 2043\* Fire Test for Heat and Visible Smoke Release for Discrete Products and their Accessories Installed in Air-Handling Spaces. *\*All ULTRALINE® AMU Series with opaque covers and all AM Series 30x24 and smaller meet the requirements of UL 2043*

Allied Moulded Products, Inc. enclosures series AMU, AM, AMP and AM-R maximum size 30 x 24 x 10 are certified:

UL Types 1, 2, 3, 3R, 4, 4X, 12 and 13

NEMA Types 1, 2, 3, 3R, 4, 4X, 12 and 13

AM and AM-R JIC flat and raised cover models sizes 14 x 12 x 6 and smaller (excluding AM743 and AM943) and all AMU models utilizing solid opaque or clear covers (excluding window covers) secured with four mounting screws are UL listed Type 6P.

Allied Moulded Products enclosures series AM sizes 36 x 30 x 12 and larger are certified:

UL Types 1, 4 and 4X

NEMA Types 1, 4 and 4X

AMP, AM and AMU series meet IEC60529 Type IP66. Models rated NEMA 6P meet IEC60529 Type IP68 submersible up to 24 hours at a depth of 6 feet (1.8m).

## CORROSION RESISTANCE GUIDELINES

|              | Solvents   | Alkalis  | Mild Acids   |
|--------------|--|--|--|
| Examples     | Cleaning Solvents<br>Carbon Tetrachloride<br>Isopropyl Alcohol<br>Perchloroethylene<br>Toluene<br>Xylene | Ammonium Chloride<br>Ammonium Nitrate<br>Calcium Hydroxide<br>Calcium Hypochlorite<br>Magnesium Hydroxide<br>Sodium Hypochlorite | Aluminum Chloride<br>Boric Acid<br>Calcium Chloride<br>Potassium Nitrate<br>Sea Water<br>Sodium Nitrate<br>Zinc Chloride |
| Recommended  | 304 SS<br>316 SS<br>Compression Fiberglass<br>Aluminum   | 304 SS<br>316 SS   | Compression Fiberglass<br>Gelcoat Fiberglass<br>Polycarbonate<br>304 SS<br>316 SS  |
| Satisfactory | Painted Carbon Steel<br>Gelcoat Fiberglass   | Polycarbonate<br>Gelcoat Fiberglass<br>Compression Fiberglass  | Painted Carbon Steel   |
| Limited Use  | Polycarbonate  | Painted Carbon Steel<br>Aluminum   | Aluminum   |

Note: This chart is only intended to be used as a general guideline for applying “typical” metal and nonmetal enclosures in chemical environments. Allied Moulded Products, Inc. recommends specific material compatibility tests for the most accurate application of enclosures. Please contact Allied Moulded customer service for specific requirements.



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Capabilities Brochure — 04/2023



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