METRO CAST

PRECAST POLYMER CONCRETE PANELS

A quick look at the company and the product

METRO CAST Polymer Concrete Panels are fabricated using a thermosetting binder and woven fiberglass cloth to create durable, versatile components with very high strength. Panels can be fabricated as veneer units or with stud framing to create a total integrated wall assembly. Precast Polymer Concrete Panels are custom designed, engineered and manufactured in a very wide range of surface textures and finishes to meet architectural requirements.

METRO CAST Polymer Concrete Panels are acid and alkali resistant, impervious to moisture, non-staining, and easily cleanable with ordinary detergents. Precast Polymer Panels offer many advantages for new buildings or renovation work. Their high strength permits thinner cross sections, and much smaller dead loads than commercial Portland cement concrete panels.

Precast Polymer Concrete Panels have been used extensively throughout the USA, Europe, and Australia, performing well under a full range of climatic conditions. Projects in these areas have performed well over the past 20 years.
BENEFITS OF USING METRO CAST POLYMER CONCRETE?!

**METRO CAST IS STRONGER**
Fiber reinforced polymer concrete is up to 4 times stronger than ordinary concrete. A 4” thick METRO CAST panel can be fabricated to the size and finish you need.

**METRO CAST IS LIGHTER**
**AT ONE-THIRD THE WEIGHT OF ORDINARY PRECAST**, a 4” THICK METRO CAST Polymer Concrete Panel reduces dead load, minimizes anchorage requirements and facilitates erection.

**METRO CAST IS MORE VERSATILE**
Polymer concrete can be precast in a wide range of contours, colors, and finishes to replicate limestone, brick, or textured finishes. It is ideal for new construction or renovation work.

**METRO CAST OFFERS SUPERIOR INSULATION**
By creating prefabricated components with an insulated polyurethane core in a high strength polymer concrete support system, METRO CAST offers far more effective insulating capability than ordinary precast.

**METRO CAST IS NON ABSORBANT AND EASILY MAINTAINED**
Polymer concrete absorbs less than one-tenth of one percent of water under standard test procedures, eliminating deterioration from freeze-thaw cycles. Its high density effectively resists dirt penetration and chemical pollutants.

**METRO CAST HAS A PROVEN PERFORMANCE RECORD**
Polymer concrete components have given superior performance on major projects throughout the USA and Europe for over a quarter of a century on a wide range of commercial, industrial, and public buildings.
DESIGN COST EFFECTIVE BUILDINGS
YOU NEED VALUE ENGINEERED EXTERIOR WALLS

What do you look for when evaluating an exterior wall system?

**Answer:** A value engineered design indicates that the following qualities deserve to be an integral part of your review.

- **Light weight exterior components** to reduce dead load and achieve important economies in the structural frame design.
- **Design versatility** including the ability to produce contours, reveals, and features in a wide range of colors and decorative effects.
- **High insulating capability** to meet thermal efficiency requirements, eliminating the need for thick walls that reduce interior space.
- **Rapid erection** with simple, effective attachment to structure, using details provided by wall components fabricator.
- **Advanced prefabrication** of components to meet fast track scheduling and accelerate closing in and completion of project.
- **Durability** including high resistance to impact, dirt accumulation, flame and freeze-thaw cycles.
- **Proven performance history** on major multi-story projects of all types over a period of many years.
MANY COMMONLY USED EXTERIOR WALL SYSTEMS DO NOT MEET SEVERAL OF THESE IMPORTANT DESIGN CRITERIA

- **Architectural precast concrete components** add substantial dead load and torsion stresses to mid and high-rise buildings, generating expensive cost increases in the structural design and attachment details. The added thickness required for furring, insulation and drywall reduce usable floor space and increase cost.

- **Granite, limestone, and other quarried components** involve high material and installation cost. They are usually available in relatively small unit sizes with numerous joints that require careful installation and maintenance to avoid water penetration and deterioration. Contours, reveals and special shapes are even more costly, and these units must be carefully set, using labor intensive procedures.

- **Exterior insulation and finish system** (EIFS) and similar low-priced facings have poor resistance to impact, abuse or penetration by sharp objects and cannot perform satisfactorily in high traffic areas. They are subject to substantial quality and appearance variations depending on the fabricator and installer utilized. Usually limited to projects where minimum initial cost is the prime determining criterion.
METRO CAST POLYMER CONCRETE PANELS CREATE COST EFFECTIVE, VALUE ENGINEERED EXTERIORS

Fabricated as veneer panels or as composite components with 4” or 6” welded stud framing, Metro Cast polymer concrete offers the following important advantages.

- **Light weight to minimize dead load.** METRO CAST composite units including welded stud framing weigh about 12 lb/sqft. Compared to 75lb/sqft for 6” thick architectural precast, creating a six fold reduction in dead load.

- **Design versatility.** METRO CAST precast units can create contours, reveals and features in a wide range of colors and finishes. Granite, other natural stone, and precast concrete effects are readily available. Composite panels with stud framing can be fabricated in large unit sizes, up to 8’ x 16’ eliminating unneeded joints that can deteriorate and permit water penetration.

- **High insulating capability.** METRO CAST composite units using 6” stud cavity filled with fiberglass insulation can develop a “U” factor of .05 to meet high energy efficiency requirements. (After insulation is in place the stud flange can be used to anchor the interior finish system, resulting in added savings)

- **Rapid erection.** The ease of handling and installing light weight METRO CAST units permits quick closing-in and completion of any building project on a “fast track schedule”.

- **Durability.** METRO CAST Polymer Concrete is five (5) times stronger than Portland cement concrete in both compressive and tensile strength. It’s extremely high-density resists dirt, water penetration, staining, and discoloration.

- **Proven performance history.** METRO CAST has been used successfully on major office buildings, hospitals, schools, and other structures over a span of more than 20 years.

- **Economy.** With its reduce dead load, thinner, more energy efficient total wall, and its rapid erection capability, METRO CAST generates major cost savings, increases usable floor space, and creates a true value engineered, cost effective wall system.