

 MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

ALPOLIC®
METAL COMPOSITE MATERIALS

Your Design | **Perfected**

ARCHITECTURAL BROCHURE

WE UNDERSTAND
ARCHITECTURAL

INSPIRATIONAL

Inspiration is born of possibilities. With an unlimited palette of colors and glosses, and the ability to craft practically any form, your imagination is free to roam. Nothing could be more liberating for an architect than knowing this: Just about anything you conceive is possible to build.

That's why we create ALPOLIC® materials. It's why we partner with architects around the world to deliver the finishes they envision in architectural panels that are easy to fabricate into remarkable forms. It's why we're passionate about supplying materials far more versatile, stable and affordable than ordinary sheet metal, with durability to keep your vision fresh for generations.

We love great architecture. Your inspiration is ours. Let's build.



Port Canaveral Exploration Tower, Port Canaveral, FL, United States
ALPOLIC®/fr in Custom BNX White with Clear Coat Finish

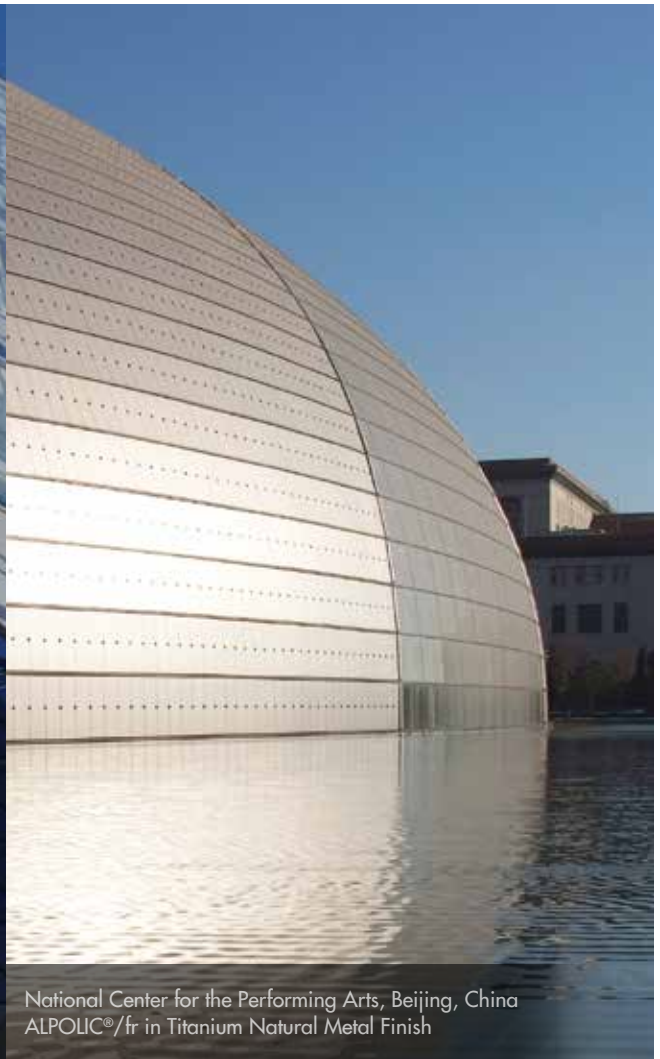
ALPOLIC®
METAL COMPOSITE MATERIALS

Your Design | Perfected





Ryerson University Student Learning Centre, Toronto, Ontario, Canada
ALPOLIC®/fr in Custom Prismatic SEP Blue Finish



National Center for the Performing Arts, Beijing, China
ALPOLIC®/fr in Titanium Natural Metal Finish



Altara Shopping and Lifestyle Center, San Pedro Sula, Honduras
ALPOLIC®/fr in Custom AGP Prismatic Purple

GLOBAL

ARCHITECTS AROUND THE WORLD ARE USING ALPOLIC® MATERIALS TO CREATE ENTRANCING NEW PERSPECTIVES AND POSSIBILITIES. AS A LEADING GLOBAL PROVIDER OF FINISHED ALUMINUM COMPOSITE MATERIALS (ACM) AND NATURAL METAL COMPOSITE MATERIALS (MCM), WE'RE PROUD TO OFFER THESE VISIONARY DESIGNERS THE BEAUTY, VERSATILITY AND PERFORMANCE THEY'RE LOOKING FOR TO TRANSFORM SKYLINES AND COMMUNITIES.

Ryerson University Student Learning Centre

It's been described as a gemstone that's fractured to expose its crystalline lattice. Glass walls give way to soffits revealing this faceted structure in iridescent blue. Through the main entryway, the crystalline forms continue in a domed ceiling above the lobby that serves as an amphitheater and gateway to the rest of the Ryerson campus.

Folded in an origami-like fashion, ALPOLIC®/fr materials finished in a custom Prismatic SEP blue finish made this three-dimensional, color-shifting effect possible when other materials proved too difficult and expensive to fabricate.

National Center for the Performing Arts, Beijing, China

"The giant egg," as it's often called, appears to float on the surface of the reflecting pool that completely surrounds it. Situated near the Great Hall of the People and the Forbidden City, this futuristic building offers an elegant counterpoint to these traditional icons of Chinese architecture.

Three theaters are enclosed by the world's largest dome, a steel structure supporting a glass curtain that modulates into the soft sheen of ALPOLIC®/fr MCM with a natural titanium skin.

Altara Shopping and Lifestyle Center, San Pedro Sula, Honduras

ALPOLIC®/fr ACM in a custom AGP Prismatic purple finish exhibits a chameleon-like effect as hues constantly shift from sky blue through violet with changes in time, weather and viewing angle. The captivating experience extends into the night as patterned perforations emanate light from multicolored LEDs.

Anchoring the first "smart city" in Honduras, the Altara Center invites imaginative exploration and shows a new way forward in a country with a rich architectural history stretching back to the Maya civilization.

INFLUENTIAL

YOUR CHOICES IN BUILDING MATERIALS HAVE A DIRECT INFLUENCE ON THE BOLDNESS AND BREADTH OF YOUR DESIGN VISION. THE BUILDINGS YOU DESIGN, IN TURN, INFLUENCE THE COMMUNITIES THEY GRACE AND THE LIVES OF THE PEOPLE WHO ENJOY THEM. ALPOLIC® MATERIALS OFFER ENDLESS FABRICATION AND FINISH POSSIBILITIES, FREEING YOU TO DESIGN ARCHITECTURE THAT TRULY MATTERS – FROM THE STATEMENT IT MAKES TO THE PURPOSE IT SERVES.

HEALTHCARE

Bring state-of-the-art quality and a vibrant, affirming look to places where people bring their hopes of sustaining healthier, happier lives.

- Hospitals
- Clinics
- Medical Offices
- Assisted Living & Nursing Homes
- Rehabilitation Facilities

EDUCATION

Challenge the mind with designs that inspire learning by creating the ideal ambience for everything from focused study, to shared discovery, to team celebration.

- University Buildings
- Schools
- Cafeterias
- Dorms
- Athletic Facilities

GOVERNMENT

Service, justice, security, community:

Engage the people with architecture that inspires civic pride, from legislative halls to park plazas.

- Government Offices
- Prisons
- Park Facilities
- Courthouses
- Fire & Police Stations
- Post Offices

MILITARY

Create the right environment for every facet of soldier life – places to train, work, plan, eat, recreate, socialize, live and raise families.

- Offices
- Housing
- Commissaries
- Hospitals

COMMUNITY

Bring people together in spaces that excite the senses and invite participation through the use of engaging forms and finishes.

- Libraries
- Auditoriums
- Museums
- Community Centers
- Churches
- Sports Arenas
- Golf Courses/Country Clubs
- Convention Centers

RESIDENTIAL

Create more than living spaces – create places to truly live, where clean lines and colorful details invite residents home each day.

- Luxury Apartments
- Condominiums
- Townhomes
- Single Family Dwellings
- Affordable Housing

COMMERCIAL

Show a flair for business with designs and colors that convey authority, yet welcome employees and customers to engage creatively with the enterprise.

- Corporate Offices
- Laboratories
- Production Facilities
- Car Parks
- Broadcast Studios
- Rental Warehouses
- Parking Garages
- Shopping Centers

INDUSTRIAL

Reveal function in extraordinary forms that represent the fruits of industry in all its dynamic and colorful variety.

- Manufacturing
- Research Centers
- Power Plants
- Warehousing & Distribution

TRANSPORTATION

Bring joy to people in transit, enlivening the journey and creating new destinations to look forward to.

- Airports
- Bus Stations
- Train Terminals
- Parking Structures
- Subway Stations



Clockwise from top left: Pickering Town Center, Ontario, Canada, ALPOLIC®/PE in RVW White and TOB Black Solid Color Finish;
Winnie Palmer Hospital, Orlando, FL, United States, ALPOLIC®/fr in Custom MBX Bronze Metallic, Mica OPT Platinum Finish;
Brigham Young University, Provo, UT, United States, ALPOLIC®/fr in Custom Silver Mica Finish

IDEAL

ALPOLIC® materials are ideal for architectural projects because they're lighter in weight, easier to fabricate into complex forms, and easier to install than traditional materials. Yet they offer superior flatness, durability, stability, vibration damping and ease of maintenance.

With a huge selection of finish types, colors and glosses – plus the ability to specify virtually any custom color – there's no limit to the architectural effects you can create. To achieve the widest possible color and gloss range, with unmatched durability, we coil-coat our ACM panels with the incredibly tough and stable Lumiflon® FEVE fluoropolymer resin, so your concept stays fresh through decades of exposure to the elements. ALPOLIC® products and finishes are backed by up to a 30-year warranty.

Product Properties

ALPOLIC® aluminum composite materials (ACM) are produced by continuously bonding two thin sheets of aluminum on either side of an extruded thermoplastic or mineral-filled, fire-retardant thermoplastic core. The aluminum surfaces have been pre-finished and coil-coated in a variety of paint finishes before bonding.

We also offer metal composite materials (MCM) featuring skins of copper, zinc, stainless steel or titanium bonded to the same cores and left unfinished. ALPOLIC® ACM and MCM both offer the rigidity of heavy-gauge sheet metal in a lightweight composite material.

Ease of Fabrication

ALPOLIC® ACM can be fabricated with ordinary woodworking or metalworking tools, with no special tools required. Cutting, grooving, punching, drilling, bending, rolling and many other fabrication techniques can be easily performed to create a virtually unlimited variety of complex forms and shapes.

MANUFACTURING FLEXIBILITY

ALPOLIC® materials are offered in a variety of thicknesses: 2mm, 3mm, 4mm and 6mm

STANDARD WIDTHS

40" 48" 50" 62"

SEMI-STANDARD WIDTHS

Consult Customer Service

CUSTOM WIDTHS

Consult Customer Service

RANGE OF SIZES

Width: 40"- 62" (826mm - 1,575mm)

Length: 6'- 24' (1,829mm - 7,315mm)

PRODUCT TOLERANCE

ALPOLIC® materials are trimmed and squared with cut edges to offer the best panel edge conditions in the industry.

Width: $\pm 0.08"$ (2mm)

Length: $\pm 0.16"$ (4mm)

PRODUCT TOLERANCE

3mm $\pm 0.008"$ (0.2mm)

4mm $\pm 0.008"$ (0.2mm)

6mm $\pm 0.012"$ (0.3mm)

BOW MAXIMUM

0.5% of length and/or width

SQUARENESS MAXIMUM

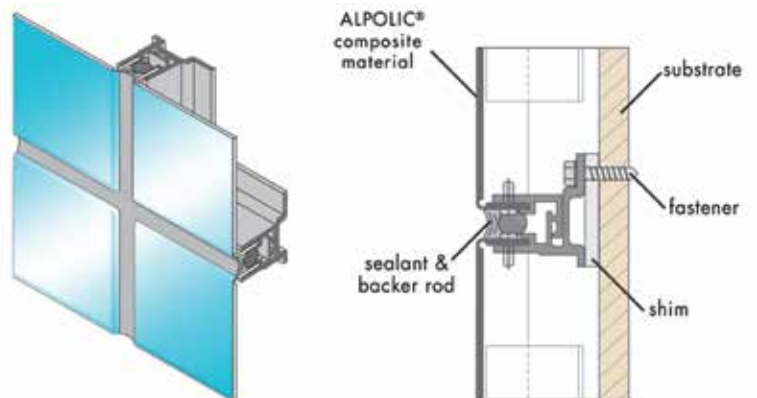
0.2" (5mm)



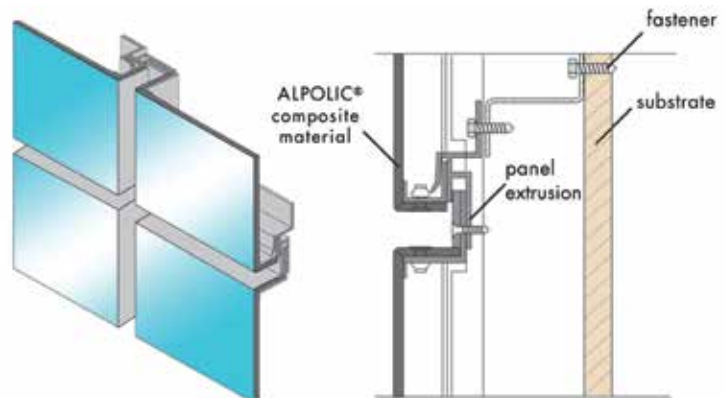
FUNCTIONAL

ALPOLIC® MATERIALS ARE UNSURPASSED IN THEIR FUNCTIONAL ADAPTABILITY, FREEING ARCHITECTS AND FABRICATORS TO COLLABORATE ON INNOVATIVE DESIGN FORMS AND CLADDING SYSTEMS. IN CITIES AROUND THE WORLD, YOU'LL FIND BUILDINGS THAT REVEAL STRIKING NEW POSSIBILITIES, ACHIEVED THROUGH THE TEAMWORK OF VISIONARY ARCHITECTS AND SKILLED FABRICATORS WORKING WITH VERSATILE ALPOLIC® MATERIALS.

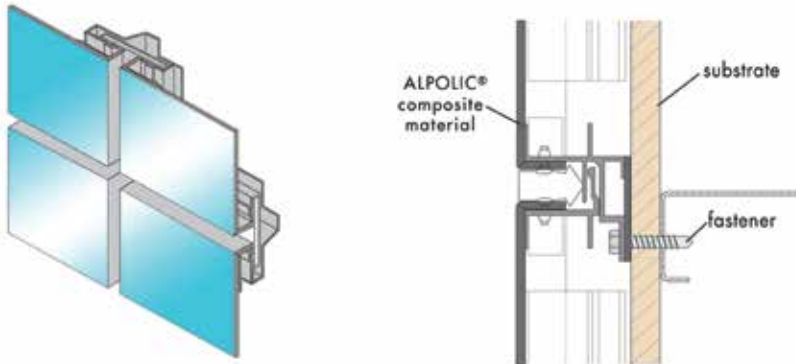
ROUT AND RETURN WET SEAL



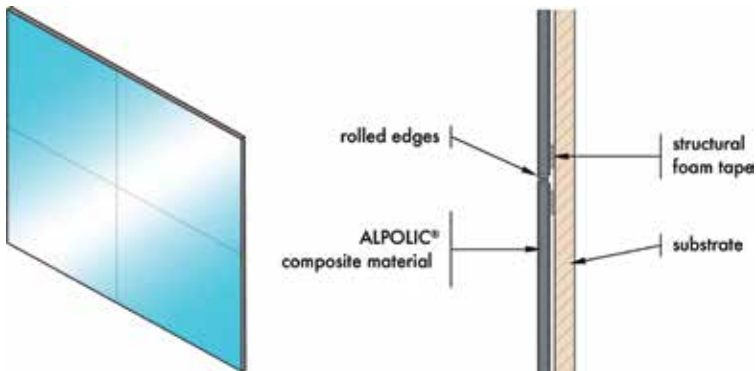
RAINSCREEN



ROUT & RETURN DRY GASKET SEAL



INTERIOR ROLLED PIN EDGE



EFFECTUAL

Let us know how we can help you make your design idea a reality. Get more information, order finish samples and find a fabricator by calling 1-800-422-7270 or visiting alpolic-americas.com.

