

FLEXTILE CLASS 1 MATERIAL



Why do we do the flexible tiles?

Current situation of building exterior decoration

Problems of imitation stone paint

- 1.The effect of imitation stone paint on the exterior wall is realized by the material and construction, which is uncontrollable and the finishing effect is unstable.
- 2.The increased flatness and crack resistance of the building's external walls cannot be solved, which affects the finishing effect.
3. There is no difference in the same coloring, which can not express the texture effect of the stone. The ordinary paint can not reflect the individualization of the building exterior wall.

Insufficient of insulation and decoration integrated board

The facing can only realize the imitation stone, which can not realize the texture of the natural stone. The installation anchor is uncontrollable and the safety has hidden dangers. The seam is easy to crack and seep, resulting in the water absorption and degumming of the insulation layer.

Insufficient of stone curtain wall

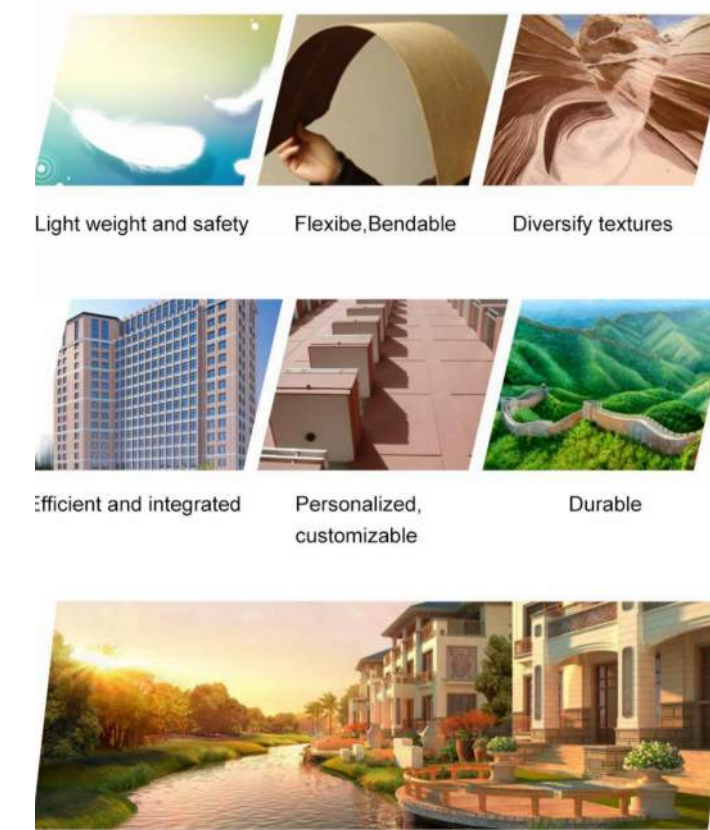
1. The keel installation process is complicated
2. Natural stone is expensive and difficult to construct
3. Natural stone has natural color differences
4. Resources are not renewable

Flexible Tile

By analyzing the advantages and disadvantages of the three types of products, such as imitation stone paint, insulation and decoration integrated board and stone curtain wall, after three years of research and development we finally created this new product - flexible tile ecological wall material, with inspected the domestic and foreign markets and introduced the team.

Flexible tile can make up for all the shortcomings of the above three types of products, which conforms with the national industry policy, and its unique product characteristic is an epoch-making decorative product.

Six characteristics



Light weight and safety

Eco-tiles are light and safe. The weight is 1/20 of stone, 1/10 of imitation slate, 1/3 of ceramic tiles, which is one of the safest building exterior decorative materials.



Flexible, Bendable

The tiles are bendable with flexibility (9200). For the complex shape, such as lines, squares columns, cylinders and arched beams, we can install directly on the site.



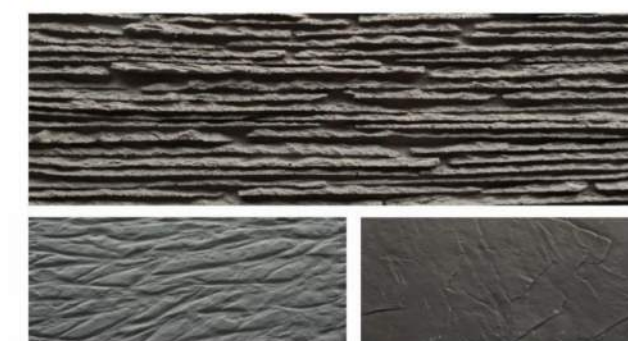
Personalized, customizable

Eco-tiles can be pre-formed according to customer's required size.



Diversify textures

Eco flexible tiles can perfectly replicate almost all the textures of nature, with natural colors, never fade, clear texture, and natural beauty.



Efficient and integrated

Eco-tiles adopts the wet-pasting process, which doesn't require the use of light steel keels or fasteners, and can be directly laid on the site, which can greatly shorten the construction period.



Durable

Eco-tiles passed accelerated aging test of 3500 hours, no powder, no skin, no cracking. In theory, eco-tiles can achieve the same life as buildings.



What is flexible tiles?

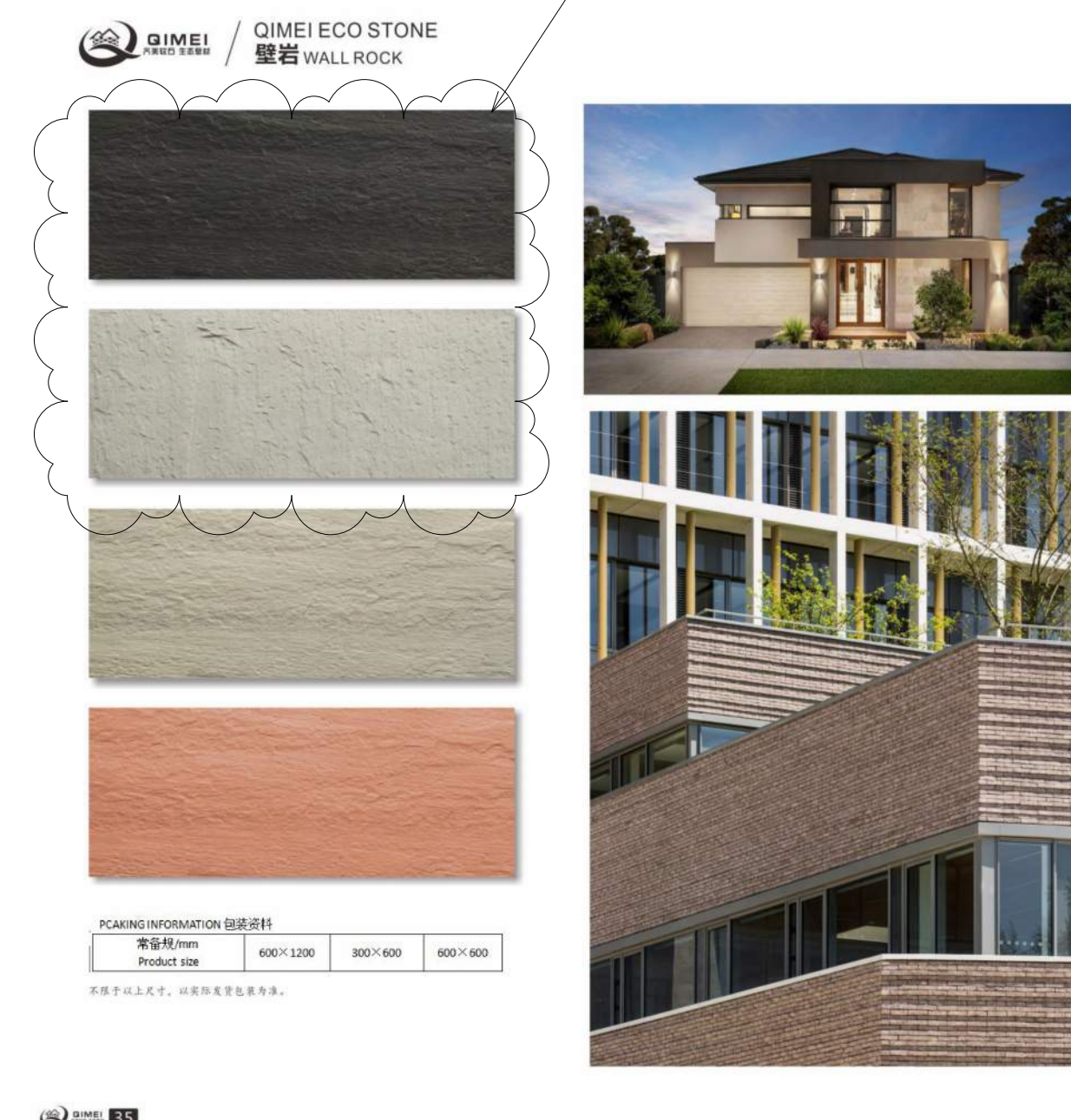
Design concepts of flexible tiles-Ecological

Wall Material

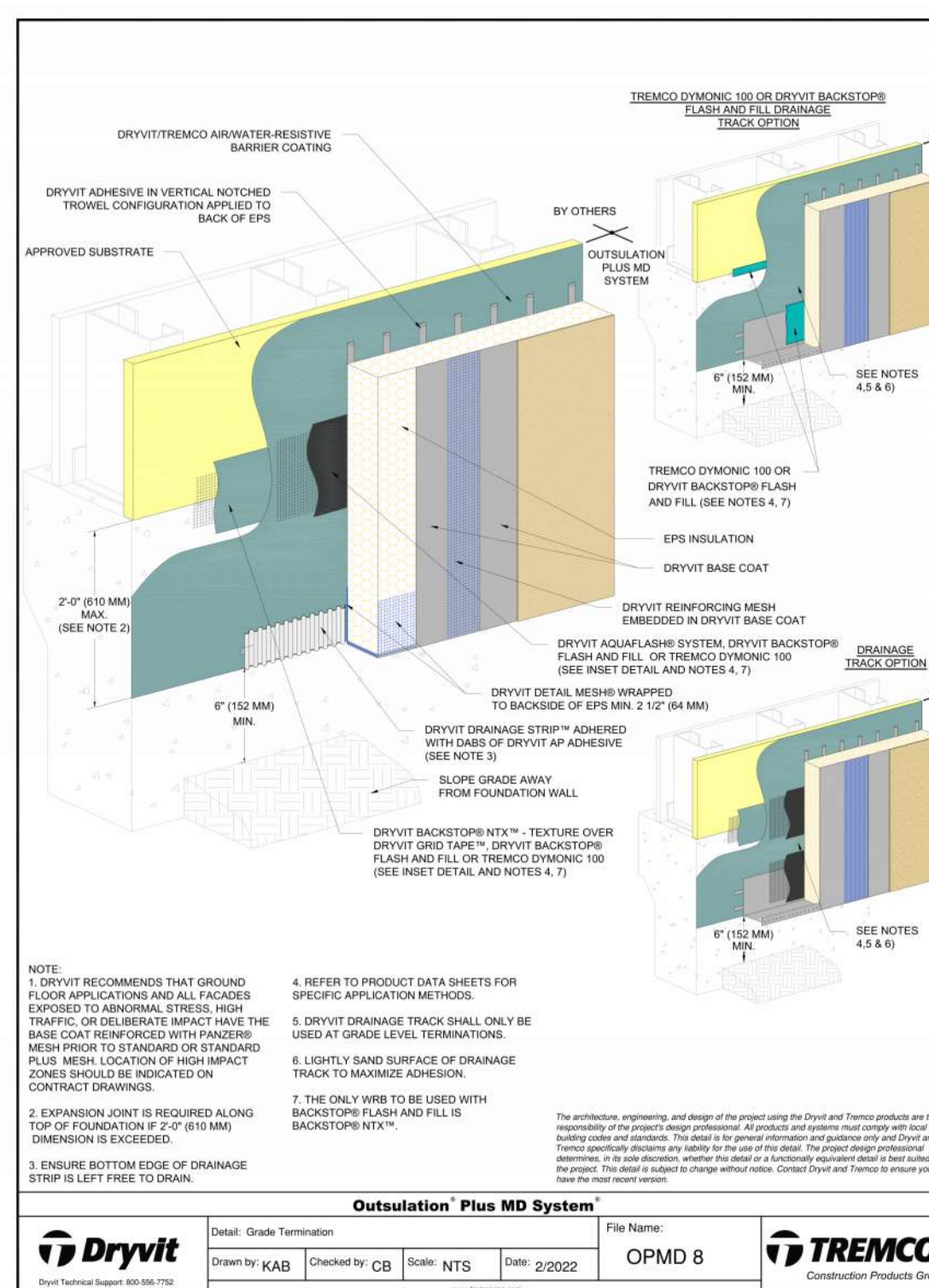
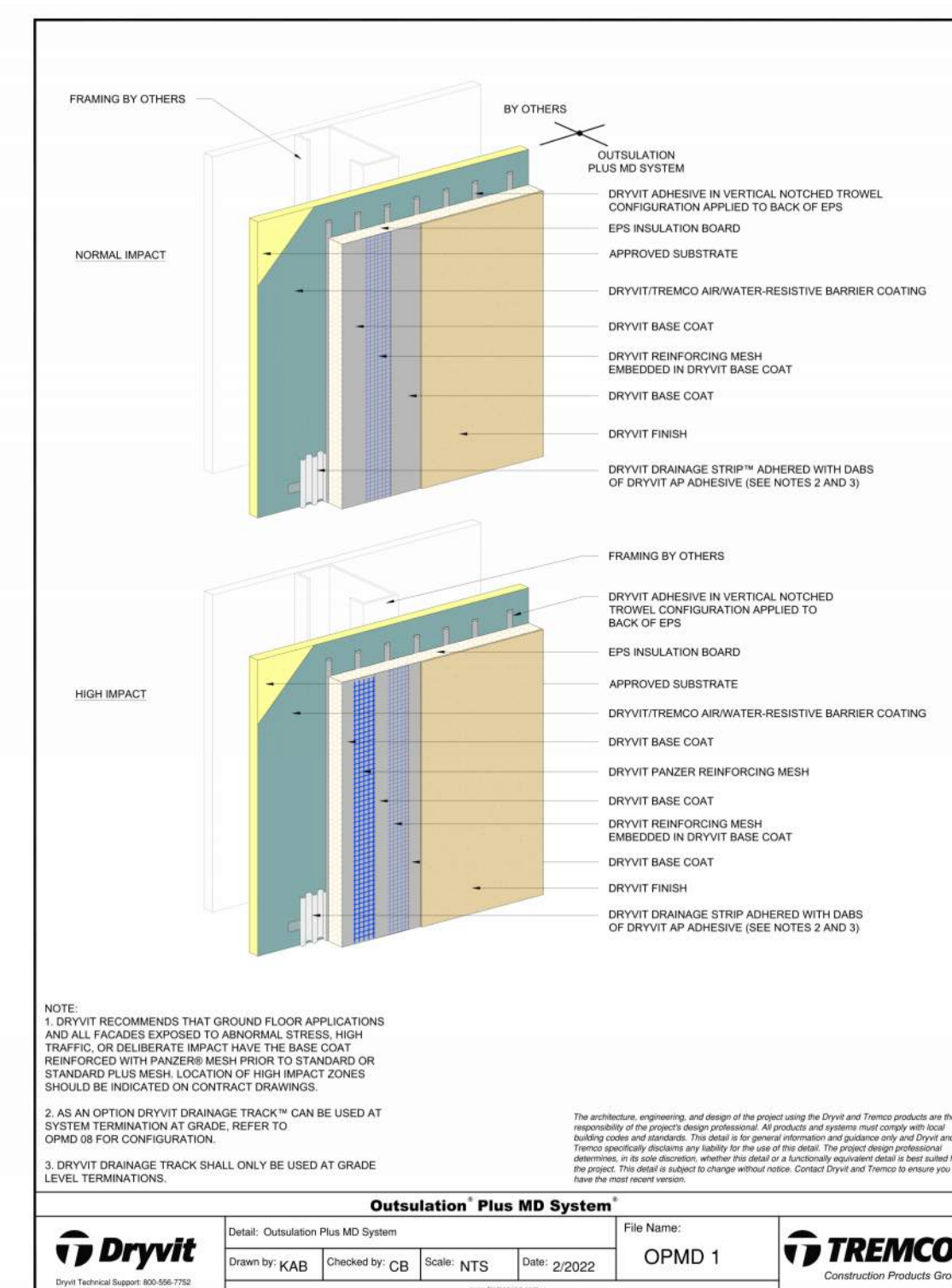
1. Flexible tile was formed through molecular compatibility and low temperature solidification using by inorganic materials such as inorganic clay, ore, powder.
2. Flexible tile can 100% perfectly reproduced the texture and color of stone by 3D technology, which others company can not do that now at the market.
3. Environmental protection and energy saving of Baidal flexible tiles is from nature and back to nature.
4. Flexible tiles is a new flexible wall material for interior and exterior, which is fully upgraded for decoration of the building.



NORHART COLOR SLECTIONS



EIFS



NORHART OAKDALE BLACK AND WHITE EIFS EXAMPLE



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SEAL

No.	Description	Date
02	PERMIT RESUBMITTALL 01	MM/DD/YY

PROJECT NAME:
NORHART RAMSEY

PROJECT ADDRESS:
PID 28-32-25-22-0076

SHEET NAME:
OPTION OF FACADE MATERIALS - FLEX TILE & EIFS

SHEET NUMBER:
A205

ALUMINUM COMPOSITE MATERIAL CLASS 1 MATERIAL



ALUMITEX

A stand-alone facade system that offers maximum integration and design potential without compromising aesthetics or durability.

Alumitex® Aluminum Facade System by Elemex offers maximum design flexibility and durability. Exceeding North American codes, Alumitex® is a smart choice for any project requiring mixed-material facades.

Alumitex® integrates seamlessly with other Elemex facade systems because it is mounted to our proprietary Unity® attachment technology. At Elemex, we understand there are many steps in the life of a project and that the journey from concept to completion can be challenging. We support your vision with solid warranties and complete single point of contact service with our 360° Advantage.

To learn more about UNITY®, our proprietary attachment technology, see page 8.



Aluminum Composite Material (ACM)

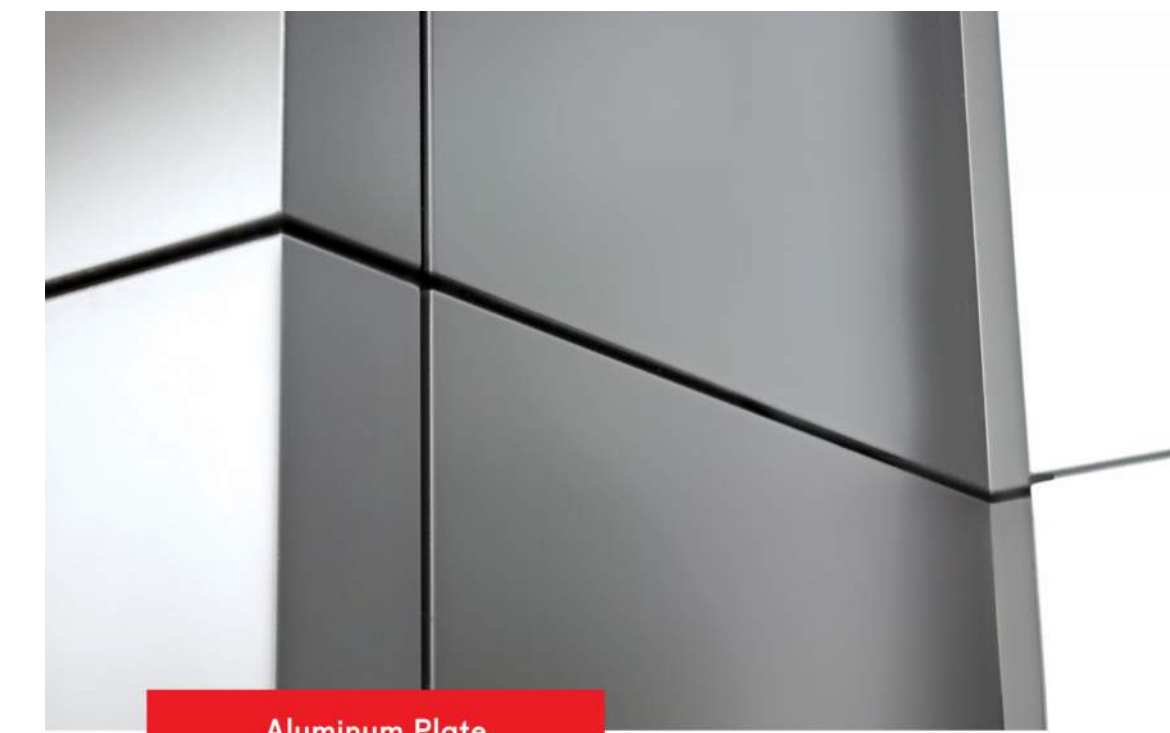
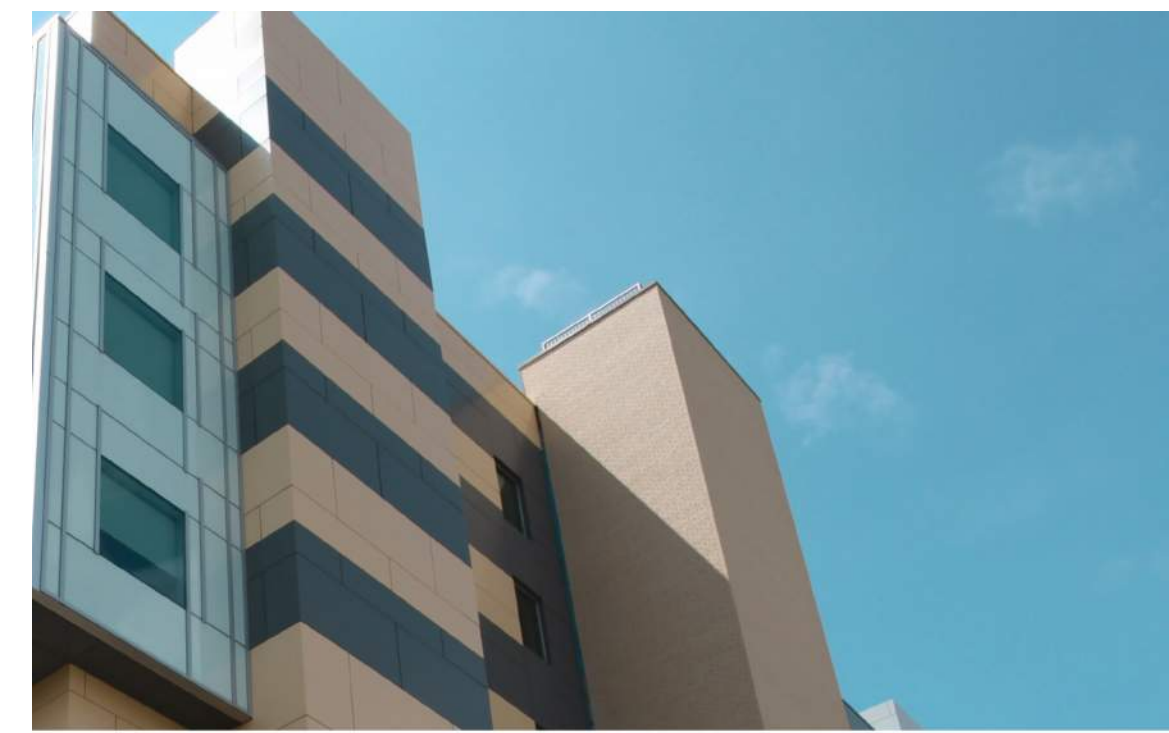
Features & Benefits

Code Compliant
The Alumitex® System has been proven to meet or exceed industry code standards throughout North America.

Climate Defiant
Resistant to expansion and contraction in high temperature or freezing conditions.

UV Resistant
The color is resistant to fading from exposure to the sun or extreme temperatures.

Corrosion Resistant
A PVDF finish protects the panels from the elements making them long-lasting, low maintenance, and corrosion-resistant.



Aluminum Plate

Features & Benefits

Climate Defiant
Resistant to expansion and contraction in high temperature or freezing conditions.

UV Resistant
Color is resistant to fading from exposure to the sun or extreme temperatures.

Weatherproof
Weatherproof panels combined with a patented pressure-equalized rainscreen system provide the ultimate weather barrier.

Endless Versatility
Extremely durable, Aluminum plate offers the opportunity to create square, crisp lines and compound curves.

Completely Customizable
Aluminum plate is post-painted which allows an endless possibility of color choices.

Product Specifications

Aluminum Composite Material (ACM) Specifications

Composition + Materials

Aluminum Composite Material consists of two aluminum sheets sandwiching a solid core of reticulated thermoplastic material, processed in a continuous process with no glues or adhesives between dissimilar materials. The pre-painted coils ensure color consistency and decrease construction schedules. A protective film is applied to the material in production that should be removed after the fabrication and once panels have been installed.

Sizing + Details

Top: 0.020" (0.5mm) aluminum skin coated with a PVDF self-coated finish containing a minimum of 70% Kynar 500®/Hylar 5000® resins.

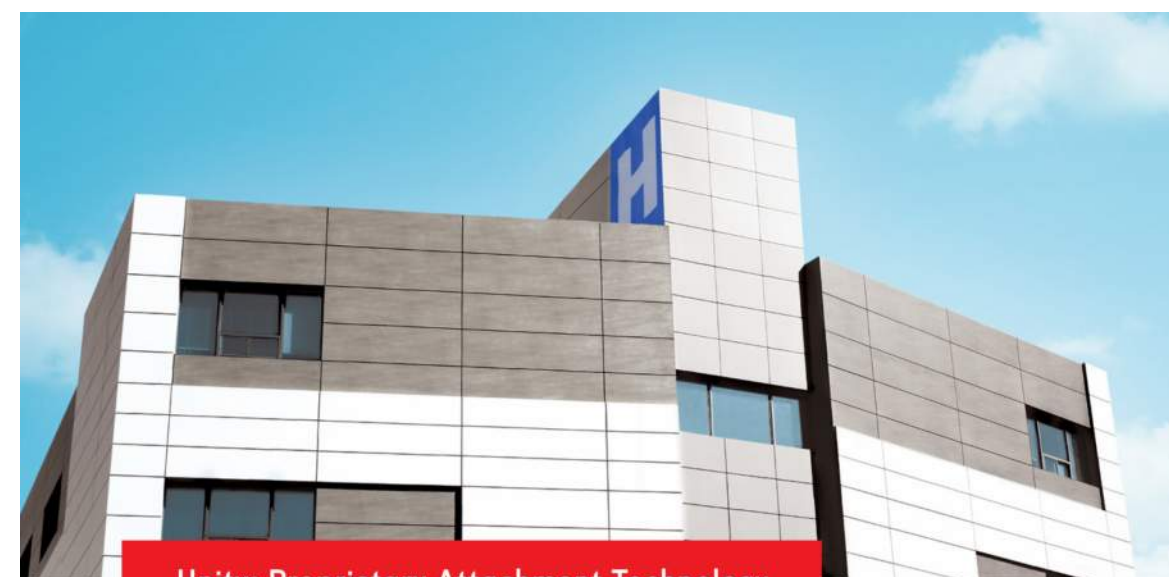
Core: Anti-toxic low density polyethylene (PE) or mineral-based fire rated (FR) core.

Bottom: 0.020" (0.5mm) aluminum skin coated with either a chrome or polyester finish.

Aluminum Plate Specifications

Composition + Materials

Aluminum Plate is a high strength, low weight aluminum alloy sheet that is durable and has excellent formability. These panels are post-painted to any desired color. Solid aluminum plate panels are non-combustible and therefore have no installation limitations.



Unity® Proprietary Attachment Technology

UNITY®

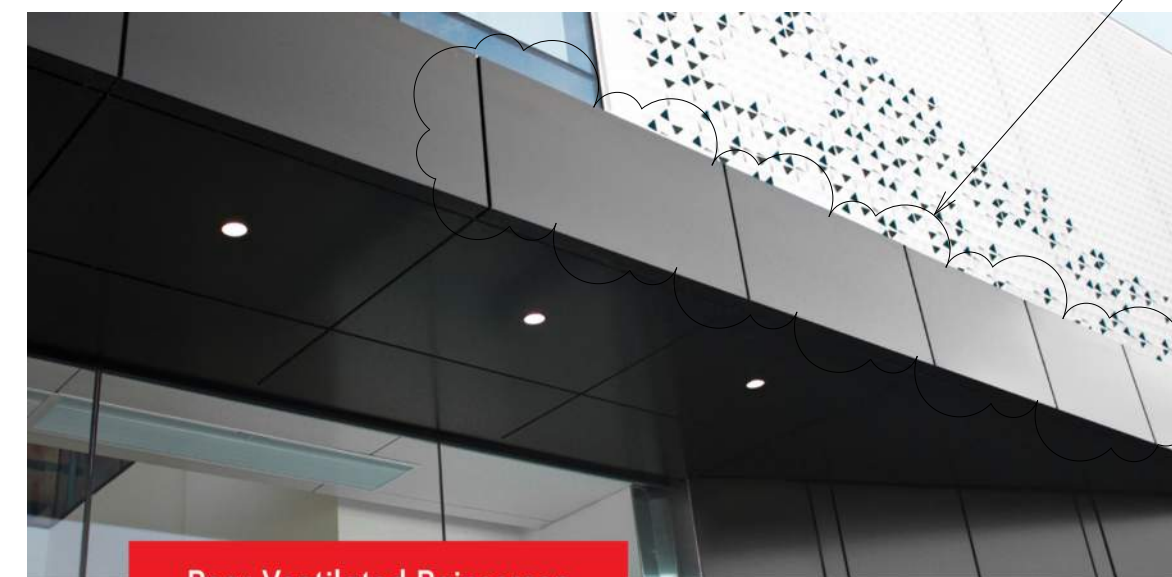
Unity® is our proprietary concealed attachment technology that supports angle and aluminum designs from flat panels to complex shapes. It seamlessly integrates with all of Elemex's facade surfaces using one proven system that offers multi-panel surface integration and the ability to design and install with absolute confidence. Unity® brings it all together for a new North American standard.

Framing System

The proprietary extruded aluminum framing consists of a perimeter frame and intermediate vertical supports that are fastened to a clip system attached to the substructure or sub-girt system.

Attaching

Aluminum composite material is mounted to the frame and adheres as defined with structural adhesive.



Rear Ventilated Rainscreen

Rear Ventilated Rainscreen (RVR)

Our Rear Ventilated Rainscreen (RVR) System breathes freely and allows panels to repel water and debris.

Pressure-Equalized Rainscreen

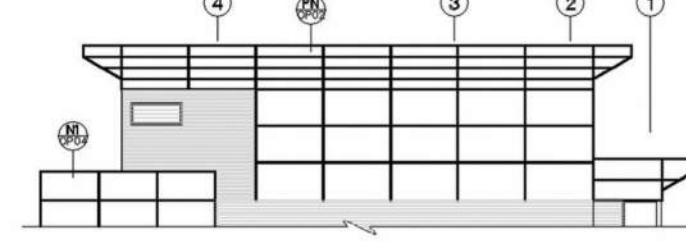
Pressure-equalization reduces the pressure difference across the cladding through the use of compartmentalization and backing weep lines of incidental water is reduced and residual moisture is returned to the exterior on the drainage plane.

NORHART COLOR BLACK SLECTION

Shop Drawing Details

Shop Drawing Details
Alumitex® panels are cut from shop drawings that are created by a team of experienced, qualified designers who work with the architect and installation contractor to meet the design intent. Once all Alumitex® panel sizes have been field measured and finalized with the installation crew, a set of fabrication tickets are created. The panels are then fabricated to the exact size in our highly automated, climate controlled production facility.

Sample Shop Drawing



All drawings must be reviewed by a local engineer following each region's building regulations and codes prior to fabrication.

Packaging, Site Storage + Handling

A protective film is attached to the front face of the panel to protect it from attracting dirt. There is no need to clean the panels once the film is removed after installation.

Slits and crates are custom built to ship panels to every project. Panels are wrapped, packed and shipped in crates based on the predetermined plan for installation.

A checklist is shipped with each skid so if any damage is sustained in the shipping process a replacement panel can be cut and expedited to the site. Panels are shipped in stages, based on a predetermined installation plan.

System Components

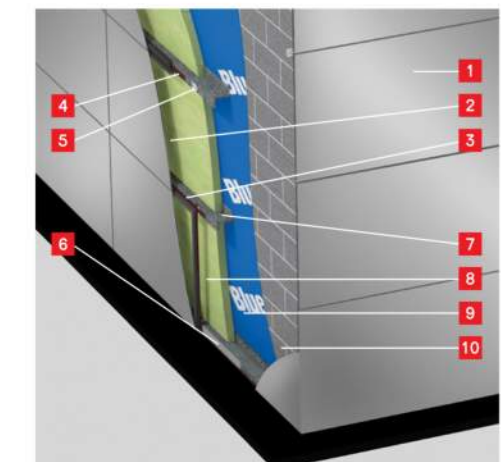
Supplies Checklist



There are two types of system applications:

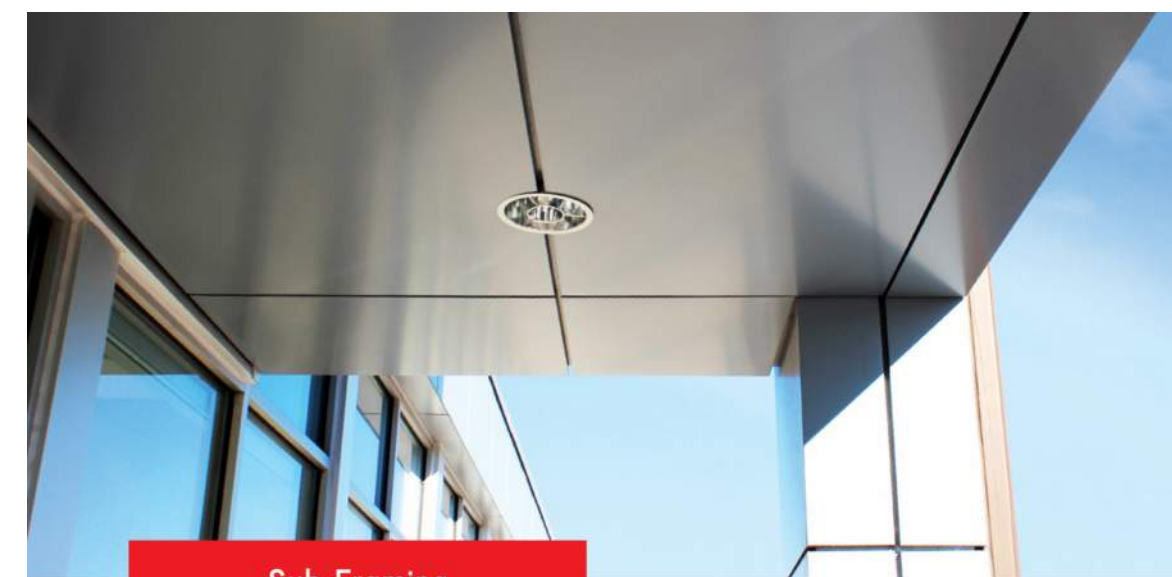
Insulated Rainscreen

An insulated system starts with a predetermined air/vapor barrier that is affixed to a uniform substrate. Heavy (16-20 gph) galvanized steel sub-framing attaches the Alumitex® panel to the wall. The sub-framing provides a cavity for the insulation as well as providing a 1" (25mm) airspace.



Non-Insulated Rainscreen

A non-insulated system requires only an air barrier, and the panels may be mounted directly to the substrate providing a 1" (25mm) airspace.



Sub-Framing

The Alumitex Aluminum Facade System can be mounted on a vertical or horizontal adjustable thermally broken galvanized framing system. Zigs or back to back "L" angles can be used both vertically and horizontally on concrete masonry units (CMU), concrete or metal structural framing with sheathing. The project design will dictate how the sub-framing is installed, but in most cases vertical framing is used. If the substrate is constructed with vertical steel studs, horizontal framing is preferred.

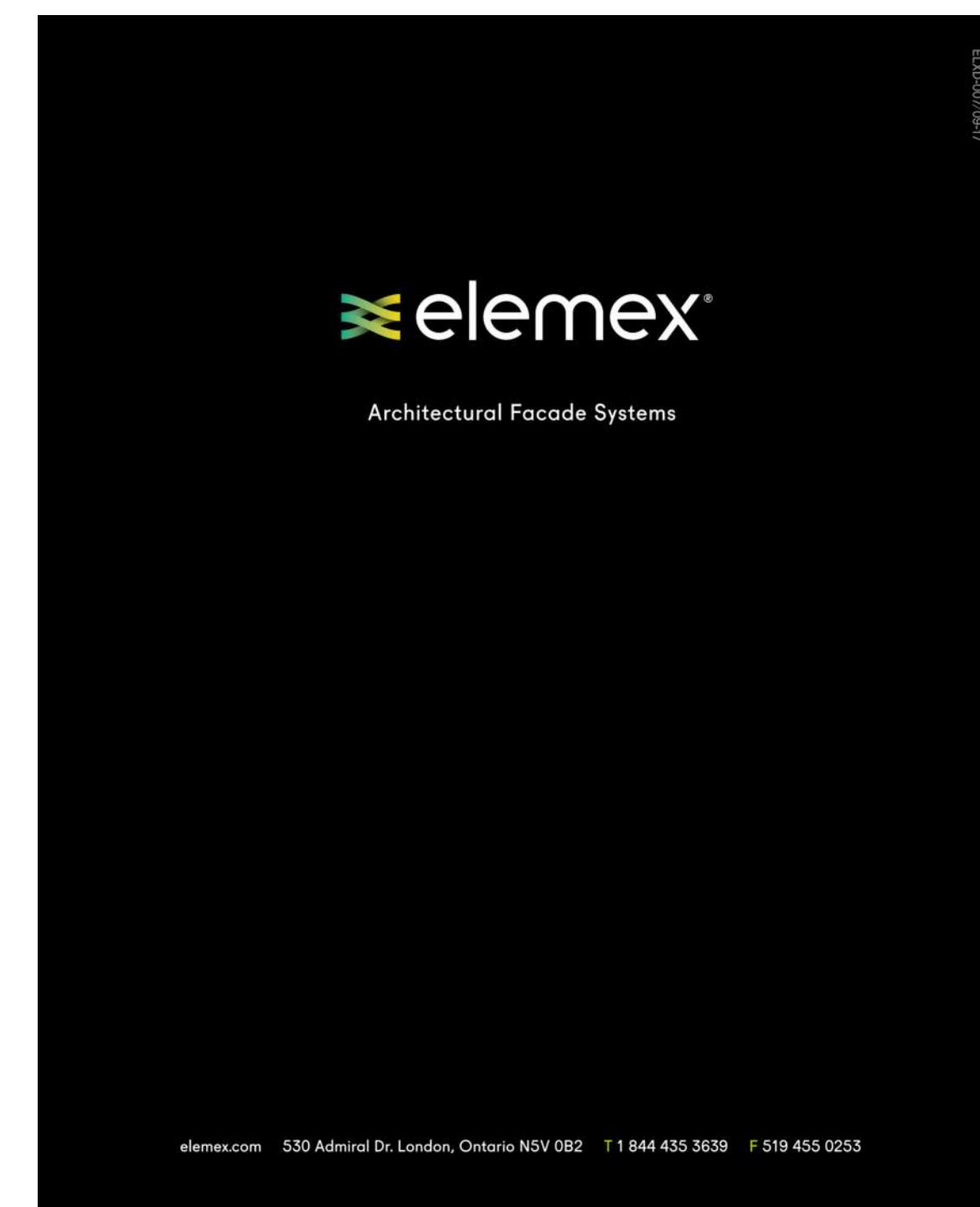
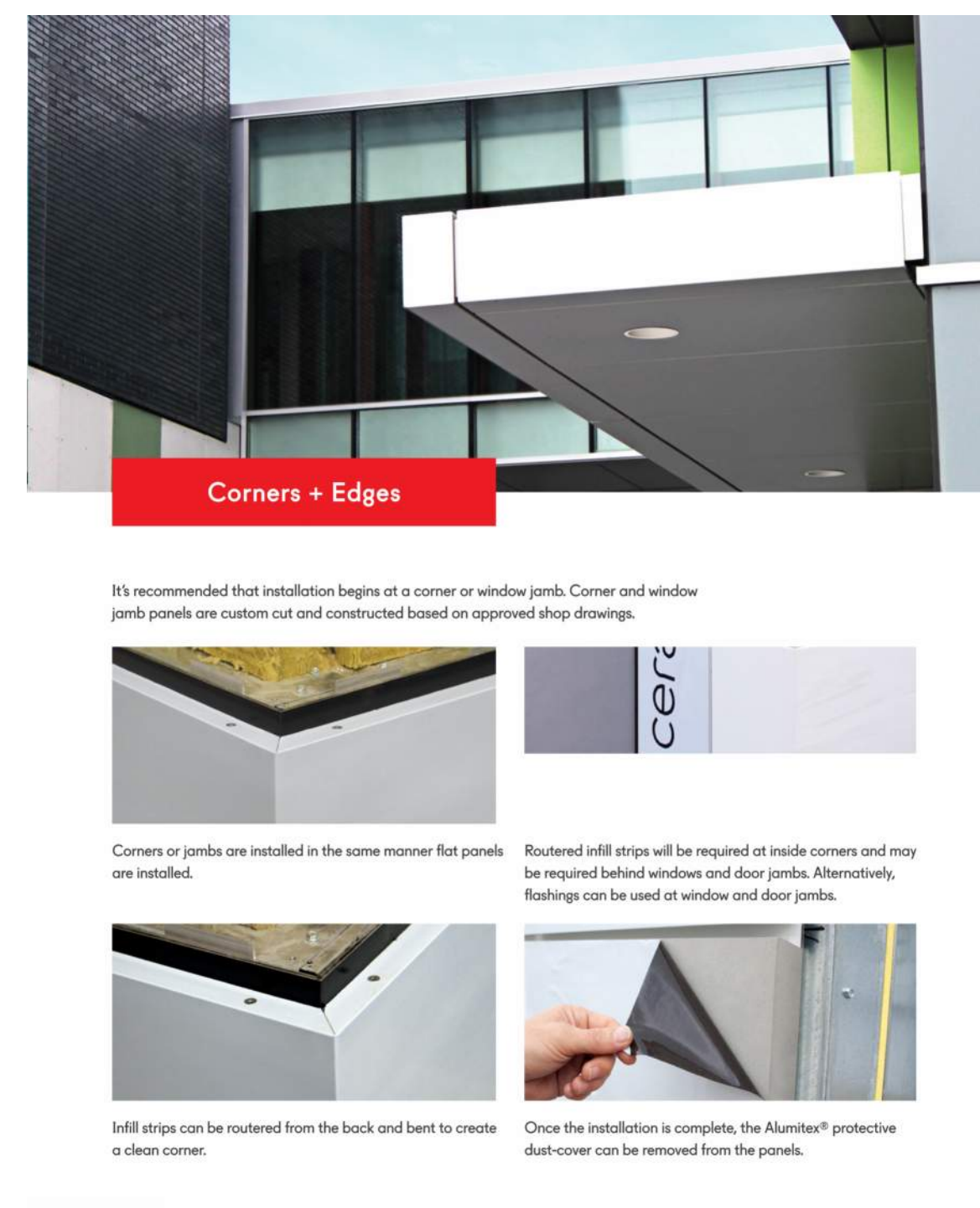
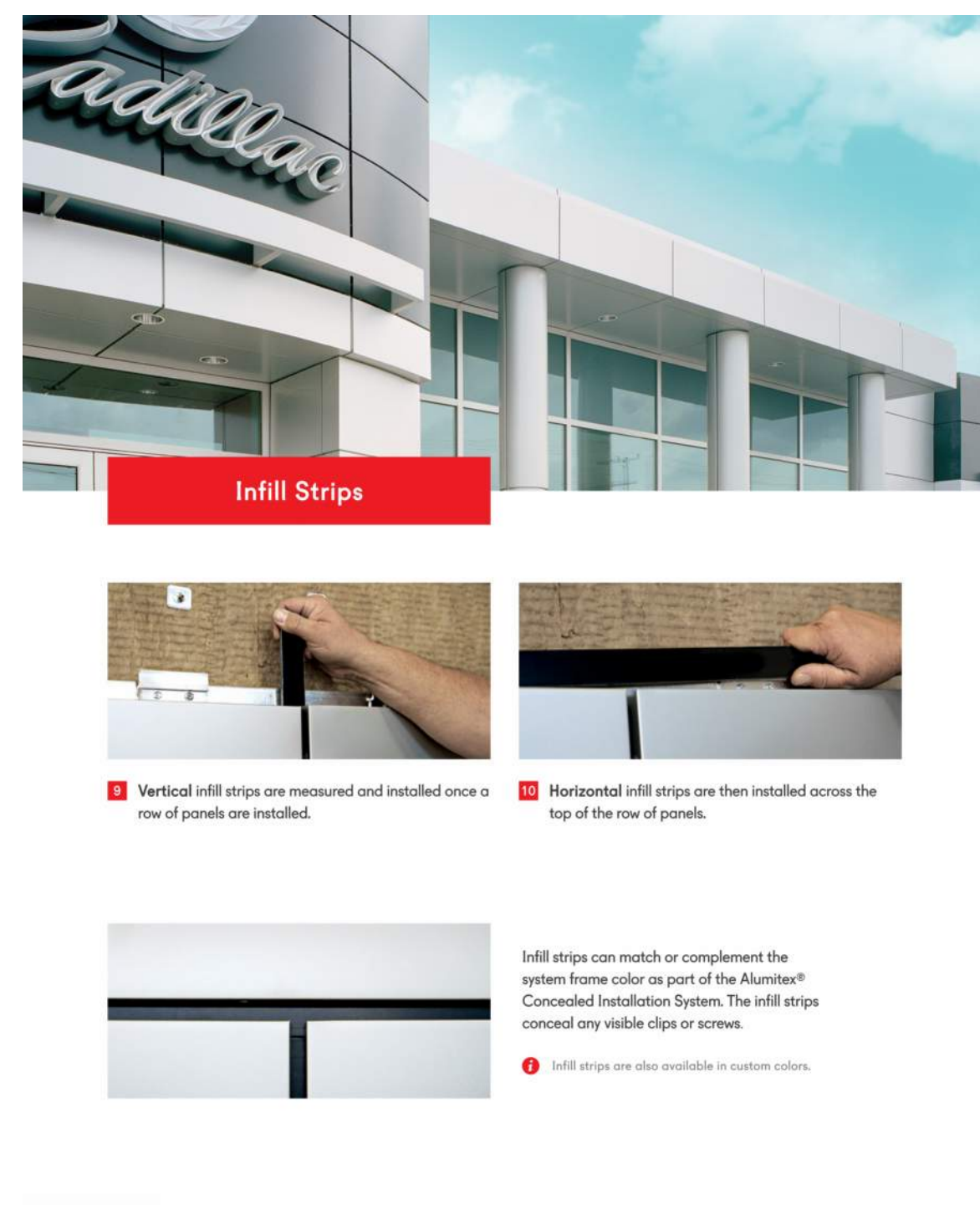
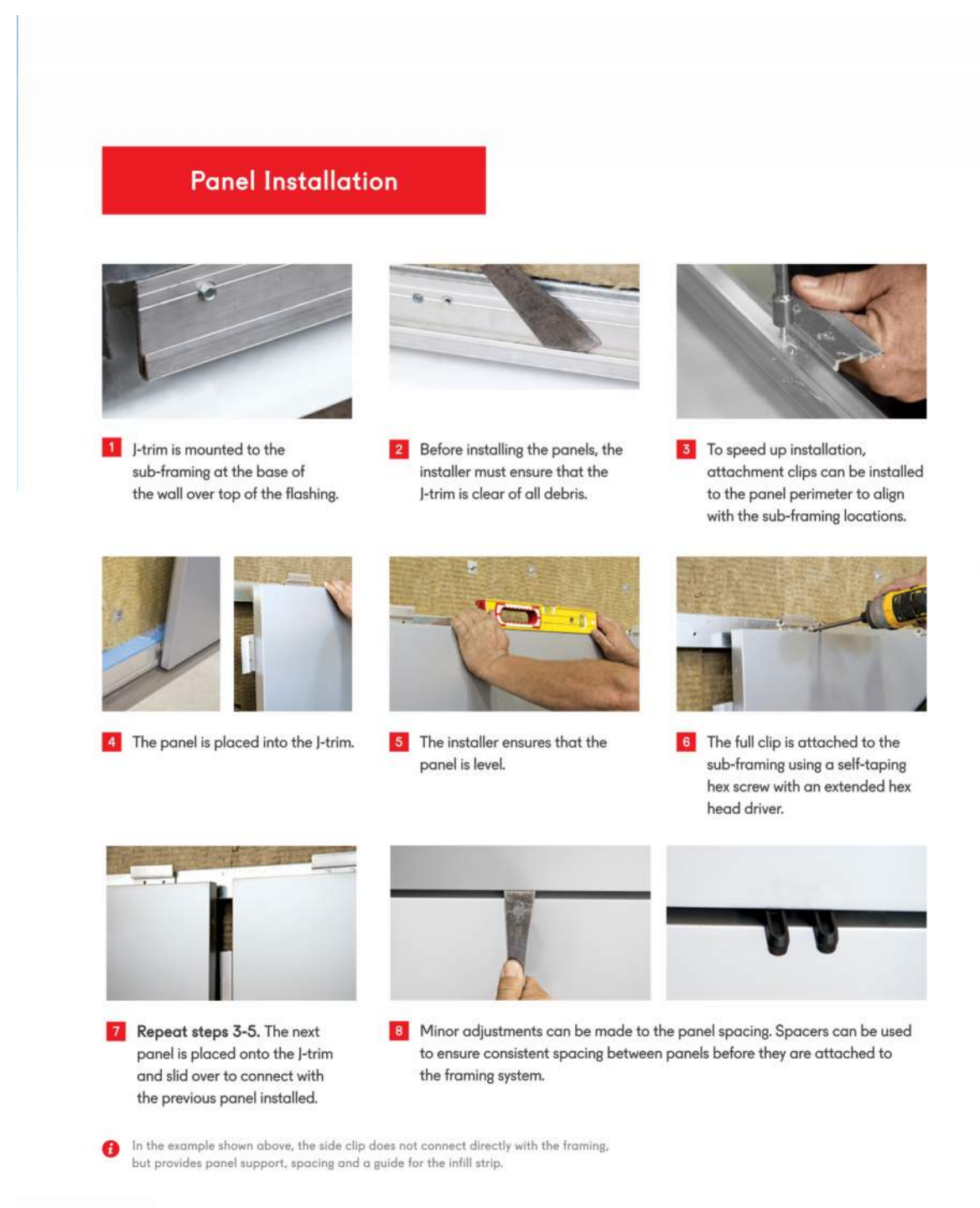
Aluminum Composite Material panels are attached using mounting clips at a maximum of 24" (600mm) on center, along the length of the sub-framing.

Technical data on panel size and including additional girts to the layout are available.

Typical Vertical Framing



Typical Horizontal Framing



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OPTIONS OF FACADE MATERIALS - ACM

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