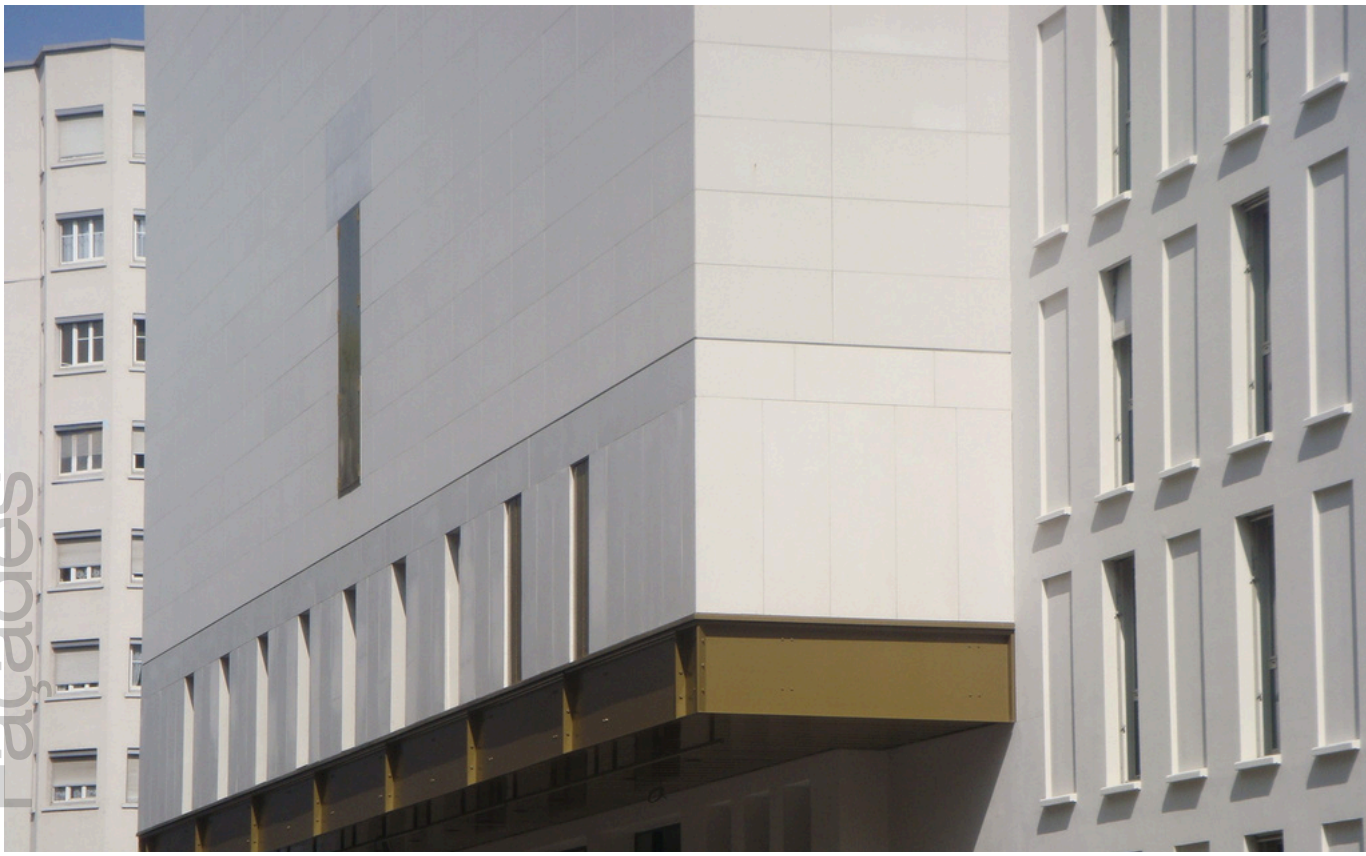
REBETON

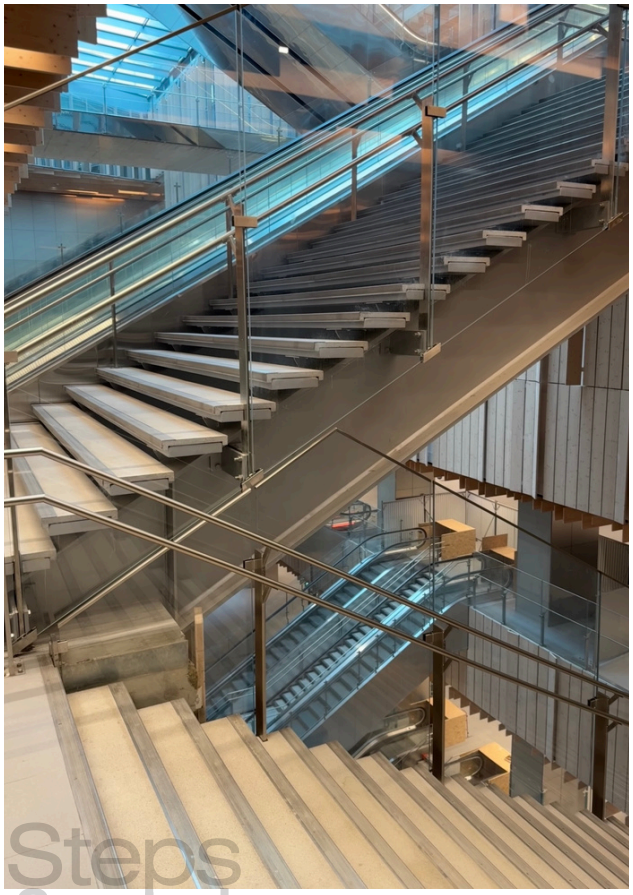


ACRYTHERM® R.

ribbed mineral cladding

Façades





Steps
& staircases



Photographe Jad Syn

Flooring

Rebeton
the art of mastering mineral

At Rebeton, we design an exceptional mineral material, as precise as it is durable.
ACRYTHERM® is not concrete: it is a dense, stable, non-porous material, engineered to withstand the test of time without compromise.
A material that gives structure to projects, highlights shapes — straight, curved, monolithic — and ensures a refined aesthetic

We manufacture custom-made slabs, piece by piece, to clad façades, floors, steps, stairs, and urban furniture.
Each element is crafted in our workshop with unwavering attention to detail: respecting the design, function, and ambition of the project.

To meet construction requirements and modern building practices, we have developed two complementary installation systems.
Among them, ACRYTHERM® R offers a simple, robust, and reliable solution, designed to accelerate installation while guaranteeing the Rebeton standard of quality.

Contents

Our material 6
Why choose ACRYTHERM® R 9
The ACRYTHERM® R system 20
Mechanical properties 24
Performances & compliance 25
Environnemental commitment 26
Colours & finitions 29
Applications 39
Rebeton expertise 56
How ACRYTHERM® reduces your carbon footprint 58

Our material

ACRYTHERM®, a unique material

ACRYTHERM® is a high-performance mineral composite, made of 90% quartz of varying grain sizes and a methacrylate resin.
Dense, stable, and non-porous, it provides exceptional resistance to impacts, UV, frost, and external aggressions.

Tinted throughout with mineral pigments, it ensures remarkable uniformity, long-lasting color depth, and consistent finish quality from one slab to another.
Its various textures — smooth, matte, polished, or stone-like — allow architectural expression without any technical compromise.

Each slab is manufactured at our Bethonvilliers facility, following a fully controlled process: formulation, molding, machining, and finishing.
This local production guarantees millimetric precision, perfect reproducibility, and the flexibility of custom solutions, whatever the project.

FABRIQUÉ EN FRANCE







- 100% recyclable
- almost zero porosity
- best weight-to-strength ratio of any material
- innovation that limits CO_2 emissions and is more durable than concrete
- frost-resistant and dimensionally stable over time
- outstanding resistance to UV, impacts, flexion, corrosion, and abrasion



WHY
choose ACRYTHERM® R. ?



Durability
that protects your budget

Certified performance for 50 Years
ACRYTHERM® R benefits from a verified EPD (INIES No. 20220930854) confirming a reference service life of 50 years without structural maintenance.
This longevity, certified through a complete life cycle analysis, guarantees the stability of the cladding and control of costs over time.

A façade that remains reliable and stable
ACRYTHERM® R panels retain their performance and appearance over the years.
Their consistent manufacturing minimizes visual variations, touch-ups, and unexpected issues on site.

Maintenance reduced to the essentials
No heavy maintenance is required.
A simple rinse with water every 10 years is recommended (EPD, Module B2) to preserve the original appearance.
In case of impact or localized damage, the affected panel can be easily replaced without any work on the rest of the façade.

Controlled budgets over the entire service life
No treatments, no protective coatings, no costly maintenance cycles: ACRYTHERM® R ensures simple, predictable, and cost-effective operation, sustainably reducing the project owner's expenses.



Your benefit:
a durable, stable façade and a controlled investment for decades to come.



Fast installation

for more cost-effective projects

An Intuitive, precise, and controlled system
ACRYTHERM® R is based on a clear and efficient grooved system. The installation is simple and straightforward, minimizing uncertainties, reducing inaccuracies, and ensuring a smooth assembly process.

Optimized formats to save time
With optimized dimensions (up to 800 × 2700 mm), the panels are easy to handle and quick to position. Fewer cuts, fewer adjustments — productivity naturally increases.

Fewer risks, fewer touch-ups
The custom design and precise manufacturing of ACRYTHERM® panels minimize variations and unforeseen issues. Each piece arrives ready to install, reducing errors and rework — major sources of schedule delays and additional costs.

A versatile system without complexity
Whether the façade is on a timber, metal, or concrete frame, or features curves (radius ≥ 200 mm), ACRYTHERM® R adapts effortlessly. One system, multiple possible configurations — a real advantage for mixed construction sites

Logistics designed for the site
Custom packaging, labeled pallets, and deliveries sequenced according to project progress: Rebeton logistics reduce clutter, facilitate material handling for teams, and help keep the schedule on track.



Your benefit:
faster installation, optimized labor, and immediate return on investment during the construction phase.



Premium
aesthetics

An aesthetic that carries the Rebeton signature
ACRYTHERM® R provides the precision and visual quality that define all our projects: clean lines, expressive material, and flawless façade readability. The material's density, surface stability, and consistent colours give buildings an elegant and controlled presence.

Finishes that reveal the material
Smooth, matte, glossy, or stone effect: each finish interacts with light to create a look perfectly suited to the architectural intent. The mineral colours, stable over time, preserve the original expression of the project without fading or variation.

A clean façade thanks to invisible fixings
The grooved system completely conceals the fixings.
The façade gains continuity: panels align seamlessly, joints remain precise, and the surface appears homogeneous, with no visible technical interruptions.

Quality that enhances your projects
Thanks to material mastery and precise fabrication, ACRYTHERM® R delivers a premium finish for any type of project. A way to give your façades the accuracy and elegance that are the hallmark of Rebeton solutions.



Your benefit:
an elegant, durable, and perfectly controlled façade — the aesthetic signature of Rebeton quality.



Certified environmental transparency

Reliable, verified, and easy-to-use data
ACRYTHERM® R benefits from a verified EPD (INIES No. 20220930854), covering its entire life cycle and confirming a reference service life of 50 years. This transparency provides a clear framework that can be directly used in technical documentation and environmental performance assessments.

Controlled impact and minimal maintenance
The material requires no structural maintenance. Only a simple water cleaning every 10 years is recommended. A façade that remains stable and easy to maintain over time.

Simplified compliance, without extra constraints
The comprehensive EPD for ACRYTHERM® R makes it easy to integrate the product into HQE®, BREEAM®, and LEED® schemes. The absence of hazardous substances* and its A+ rating for indoor air quality further support project compliance while ensuring a controlled indoor environment.

* according to REACH

Your benefit:
complete transparency, ensuring compliance and peace of mind for your projects.







Rebeton

a reliable partner for your construction sites

Expertise recognized for over 40 years
For more than four decades, Rebeton has been developing bespoke mineral solutions for architecture. This experience ensures in-depth mastery of processes, construction requirements, and the expectations of industry professionals.

Expertise suited to all types of projects
Rebeton is experienced in both highly technical projects and more standard operations. This versatility, reinforced by our two systems—ACRYTHERM® R and D—enables us to support all façade configurations and provide solutions tailored to each project.

Support from start to finish
From design to delivery, our teams guide you to secure your decisions, optimize your construction sites, and maximize your results.

An organization designed for reliability
Clear information, rigorous tracking, and structured validations: each step progresses with precision. This ensures smooth execution and a fully controlled construction process.



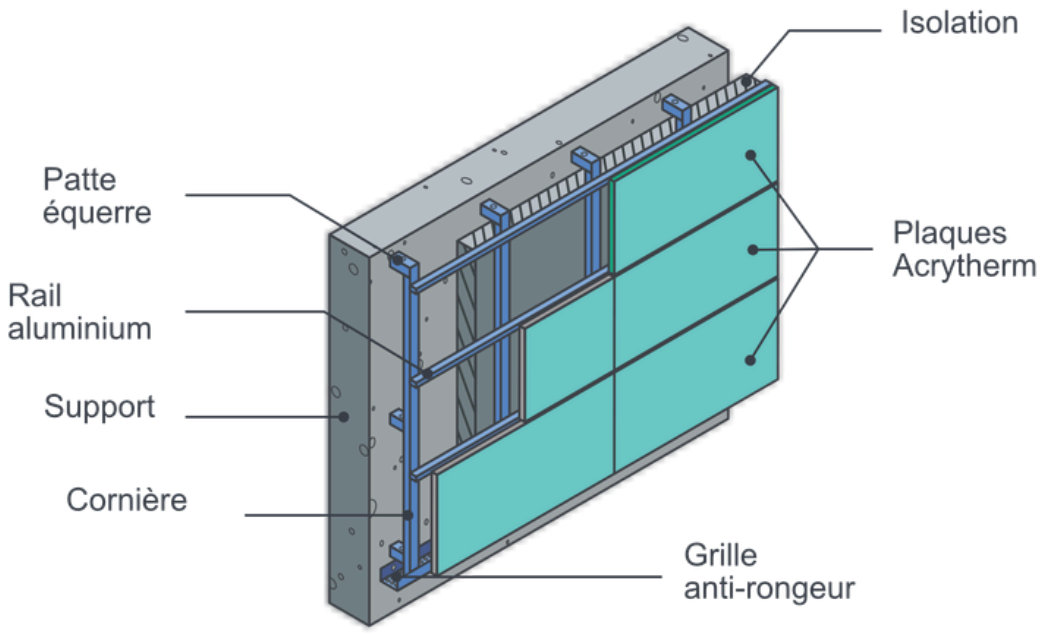
Your benefit:
a solid, precise, and committed partner at your side, ensuring fully controlled construction sites.

The ACRYTHERM® R. system

A grooved system that simplifies installation

ACRYTHERM® R is a complete ventilated cladding system based on a proven principle: mineral tiles grooved on their edges, mechanically engaged in aluminium rails, with invisible fixings.

The ACRYTHERM® tiles lock into rails that ensure their support and alignment.
This principle guarantees a compliant ventilated façade, an intuitive installation process, and highly consistent panel alignment.









Key features of the system

Exposed aluminium framework
Compatible with concrete, metal, or timber supports, the framework allows precise adjustment of the substructure geometry, whether flat or curved (radius ≥ 200 mm).

Grooved tiles, mechanically engaged
Each tile is precisely machined to fit into the rails.
Mechanical stability is reliable, reproducible, and achieved without visible fixings on the façade.

Easy and secure installation
Installation is done by successively slotting the tiles in place, using a simple, easily controlled motion.
This approach reduces errors and facilitates team coordination on site.

Ventilated façade
A continuous air gap is maintained behind the tiles, ensuring proper system ventilation and contributing to the long-term durability of the façade.

Versatility of configurations
The system adapts to both flat and curved façades (radius ≥ 200 mm) and can be installed on a wide variety of substructures.











Mechanical properties

Flexural strength	≥30 N/mm² – DIN 1164
Compressive strength	≥130N/mm² - DIN 1164
Apparent density	2,3 G /cm³ - DIN 53 479
Modulus E	24000 N/mm² - DIN 53 457
Shore D hardness	≥ 80 – DIN 53 505
Ball indentation hardness	≥ 210N/mm² - DIN 53 456
Thermal conductivity	2 W/m.k - DIN 56 612/1
Dimensional stability under heat	≤ 0,1% NF EN 14617-1
Linear thermal expansion coefficient	NF EN 14617-5
Water absorption	Bfl-s1 – EN 13501-1
Fire reaction rating	≥ 90°C – DIN 53 461/A

Performance & compliance

A validated system

ACRYTHERM® R holds a favorable Technical Assessment (ATec 2.2/16-1727_V1), confirming its suitability as a ventilated cladding on concrete, masonry, metal, or timber frame substrates. The system's performance and scope of use are fully documented and evaluated according to CSTB standards, providing a reliable technical framework for specification and installation, including bespoke configurations.
This regulatory framework ensures compliant and secure installation.

Fire safety

The panels are rated A2-s1,d0, providing minimal contribution to fire and limited smoke emission — a level of safety compliant with the requirements applicable to all types of buildings.

Wind resistance

ACRYTHERM® R meets the requirements of NV65 standards and Eurocodes.
The supporting frame is dimensioned according to CSTB technical guides to ensure reliable stability in exposed areas.

Seismic zones

The system can be installed in seismic zones 1 to 4, in accordance with the specifications of the Technical Approval (Avis Technique).

Ventilation and water management

The system includes a continuous air cavity (≥ 20 mm) and water-tightness management in compliance with ventilated cladding regulations.

Maintenance and replacement

Routine cleaning is done with soapy water only.
Individual panels can be replaced without removing the entire assembly.

In a spirit of transparency regarding material composition, ACRYTHERM® formulations are made from raw materials for which **PFAS** are neither used nor intentionally added, according to supplier declarations.



Environnemental commitment

An approach embedded in our processes

At Rebeton, environmental commitment is not an abstract promise, but a guiding principle applied at every stage of our activity.

Energy efficiency, carbon footprint reduction, and responsible resource use guide our decisions—from the material's design to its implementation on site.

ISO 14001 certified production

Our Bethonvilliers production site is ISO 14001 certified.

Beyond the label, this represents a genuine system of continuous improvement: measuring, reducing, compensating where relevant, and above all, enhancing our daily practices.

The goal is clear and concrete: minimize resource consumption, prevent environmental impacts, and ensure consistent environmental quality over time.

Energy controlled at every stage

The polymerization of our slabs at ambient temperature is at the heart of our environmental performance.

This technological choice significantly reduces energy requirements while ensuring consistent material quality

Resource optimization

The water used on site is filtered and recycled at every stage of production, drastically reducing withdrawals and discharges.

We also prioritize raw materials sourced locally, minimizing upstream transport and securing our supply chains.

Tailored production, optimized logistics

Because each slab is custom-made, we produce only what is needed.

Production offcuts are reintroduced into the process and fully valorized.

This eco-design approach extends to logistics: tailored packaging, calibrated deliveries, and an organization adapted to site constraints, minimizing unnecessary transport and handling.

Durability as the primary low-carbon lever

The best resource is the one you don't consume.

With a reference service life of 50 years, ACRYTHERM® slabs are designed to withstand the test of time with minimal maintenance.

Fewer replacements mean less raw material extracted, less energy consumed, and lower carbon emissions.

Sustainable architecture
is more than just recycling:
It's first and foremost about designing solutions
that last, without compromise.



Colours & finishes

A material brought to life through colour

ACRYTHERM® s'appuie sur une base naturelle ivoire issue de la pureté du quartz. De cette matière noble naît une palette chromatique raffinée, élaborée avec des pigments minéraux — oxydes de fer, dioxyde de titane — réputés pour leur résistance exceptionnelle aux UV et aux agressions climatiques.

Résultat : des nuances profondes et homogènes, qui conservent leur éclat au fil des années et magnifient la lecture architecturale des façades.

All the nuances of the mineral

The ACRYTHERM® colour range offers a variety of shades, allowing every architectural intention to be expressed: light and bright tones, natural mineral hues, and more intense shades to assert a building's identity.

Each colour is designed to interact with light and to ensure perfect uniformity, even across large surfaces.

materiaux.archi PRO
PARTENAIRE MATERIAUTHEQUE PRO

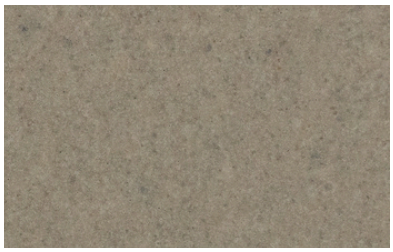
REBETON is featured on **Matériaux.archi**, the architects' and specifiers' material library.
This presence reflects our commitment to sustainable and innovative architecture.

www.materiau.archi

Finition brillante

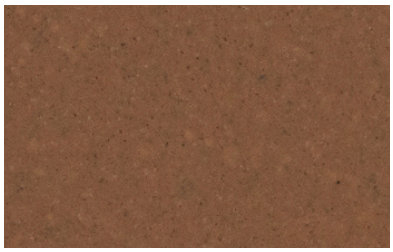

Glacier


Craie

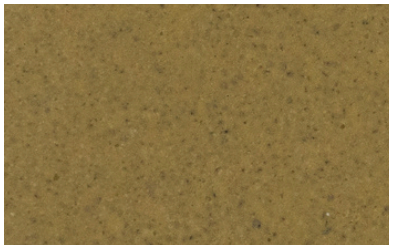

Ivoire


Opale


Portland


Corail

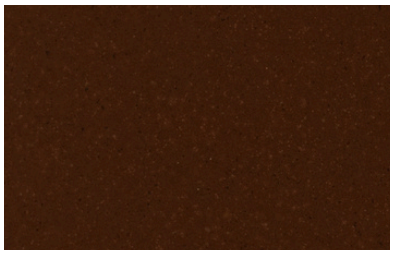

Jaumont

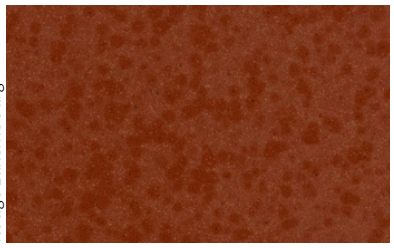

Tuffeau

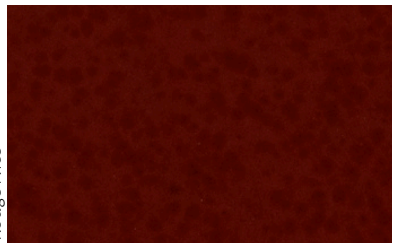

Corindon

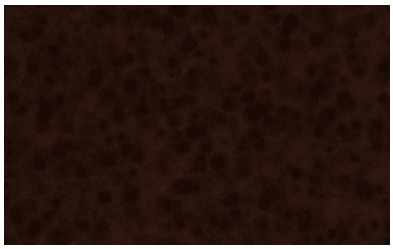

Sahara


Camel


Tourbe

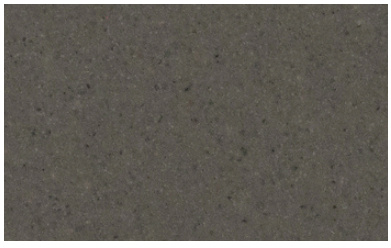

Rouge Luxembourg

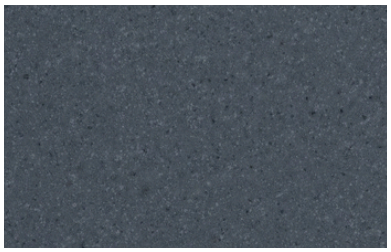

Rouge Nice

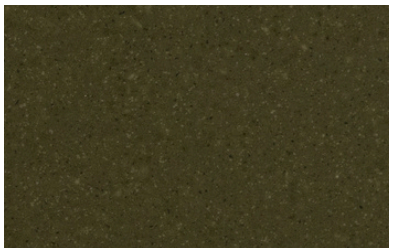

Chocolat


Cris clair


Cris fer

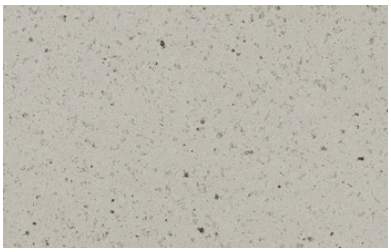

Antimoine


Silex


Cris vert


Anthracite

Finition pierre extra fin


Glacier

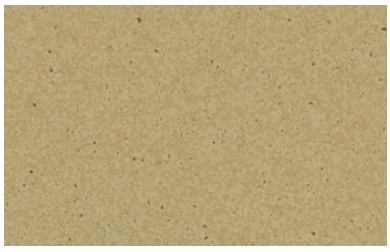

Craie

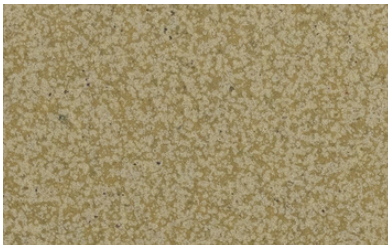

Ivoire


Opale

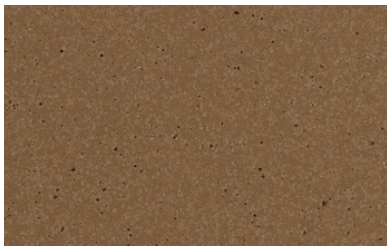

Portland

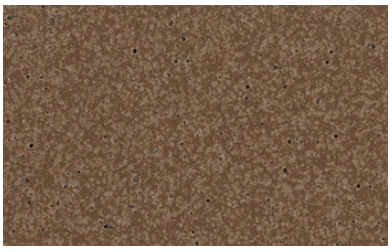

Corail

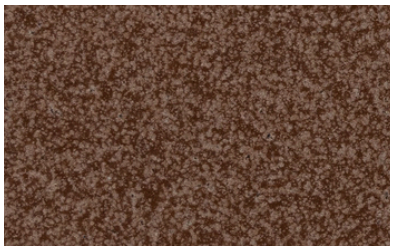

Jaumont

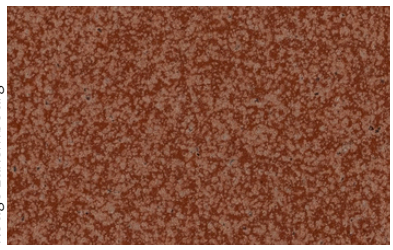

Tuffeau

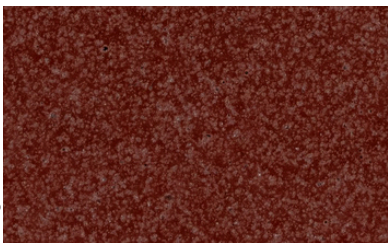

Corindon


Sahara

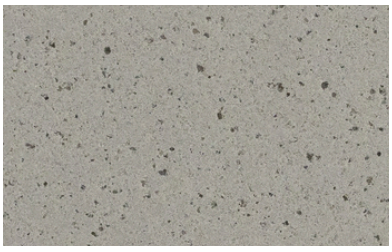

Camel


Tourbe

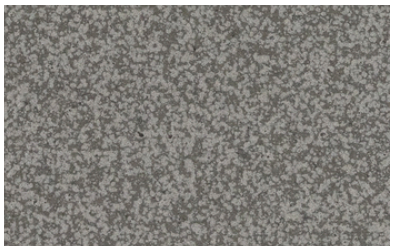

Rouge Luxembourg

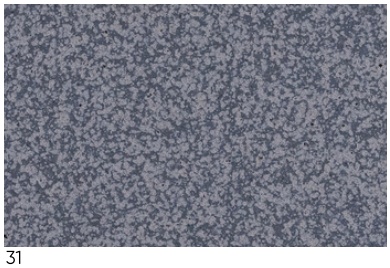

Rouge Nice

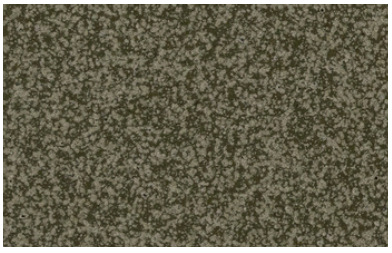

Chocolat

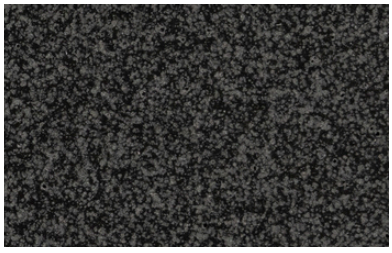

Gris clair


Gris fer


Antimoine


Silex


Gris vert


Anthracite

Finition pierre fin

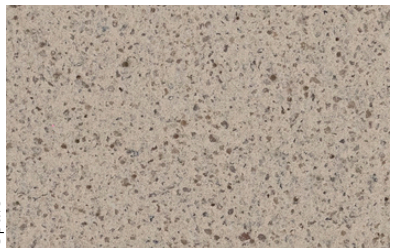


Finition pierre moyen


Glacier

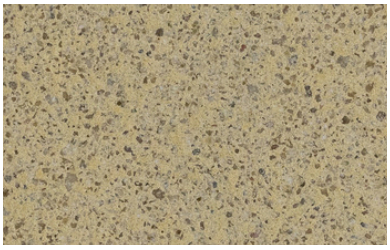

Craie


Ivoire


Opale

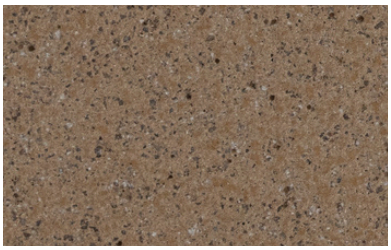

Portland


Corail


Jaumont


Tuffeau

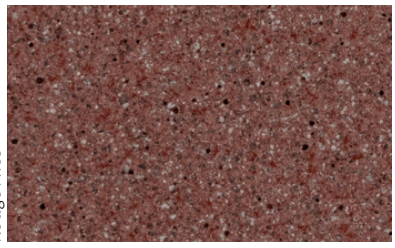

Corindon

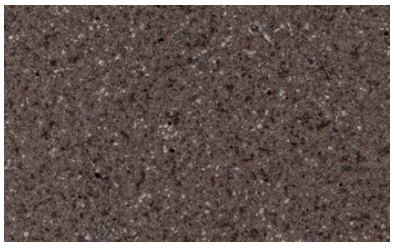

Sahara


Camel


Tourbe

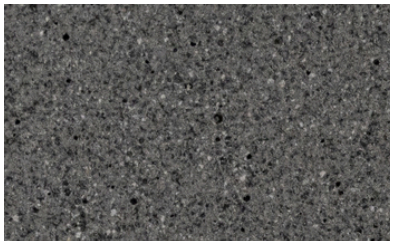

Rouge Luxembourg


Rouge Nice


Chocolat

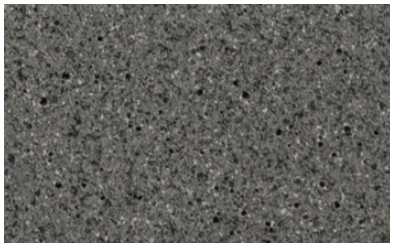

Gris clair


Gris fer


Antimoine


Silex

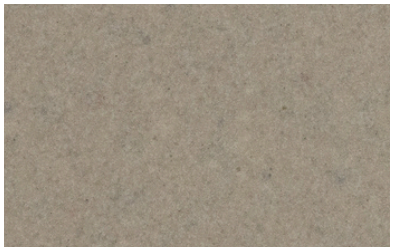

Gris vert


Anthracite

Finition mate

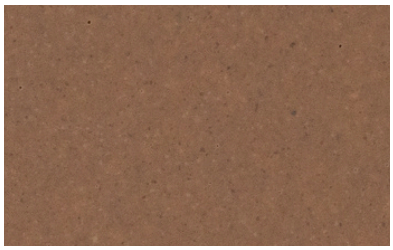

Glacier


Craie

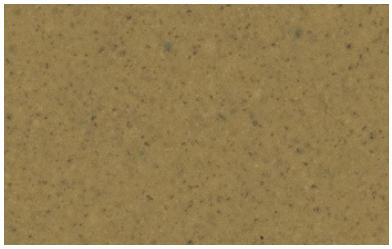

Ivoire


Opale


Portland


Corail


Jaumont


Tuffeau


Corindon


Sahara


Camel


Tourbe

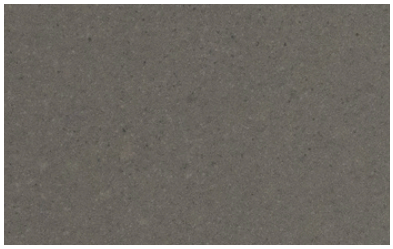

Rouge Luxembourg

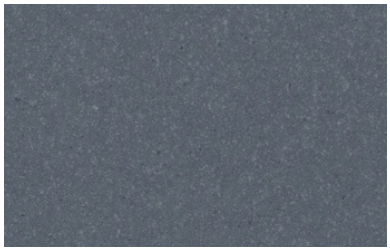

Rouge Nice

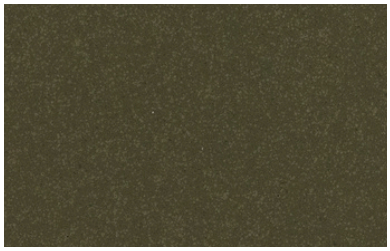

Chocolat


Gris clair


Gris fer

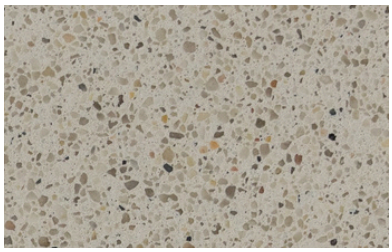

Antimoine

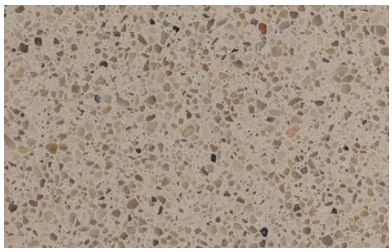

Silex

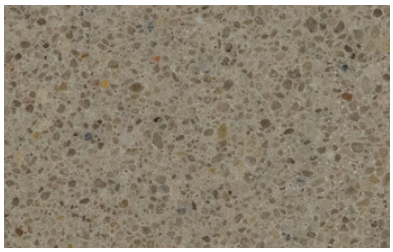

Gris vert

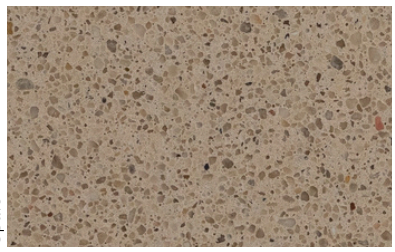

Anthracite

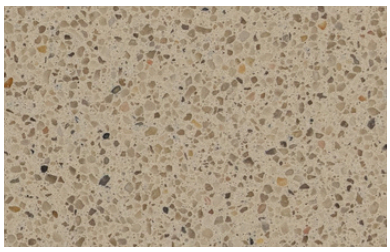
Finition polie

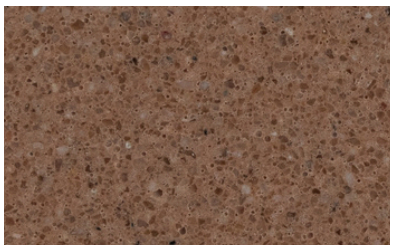

Glacier

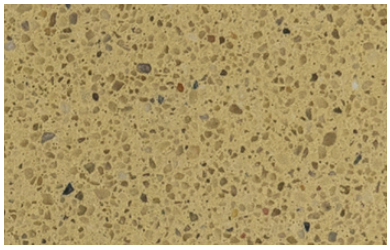

Craie

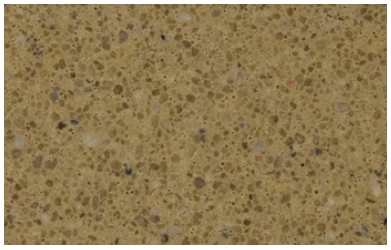

Ivoire

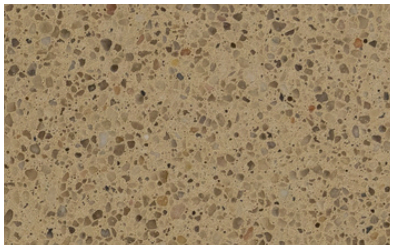

Opale

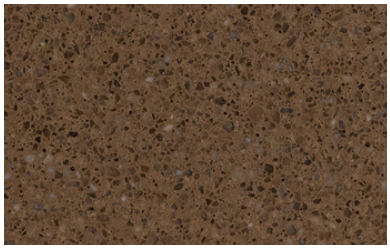

Portland

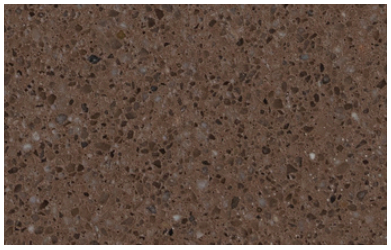

Corail

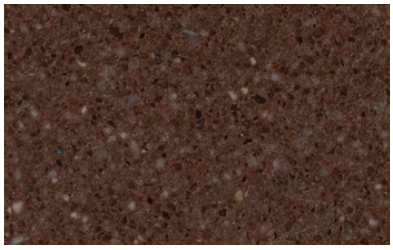

Jaumont

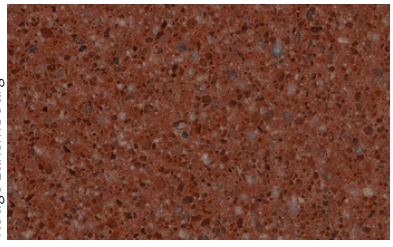

Tuffeau

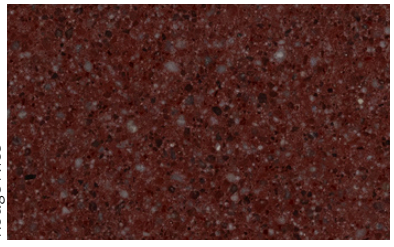

Corindon

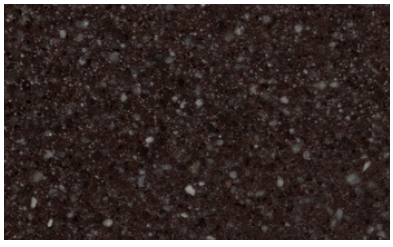

Sahara


Camel


Tourbe


Rouge Luxembourg

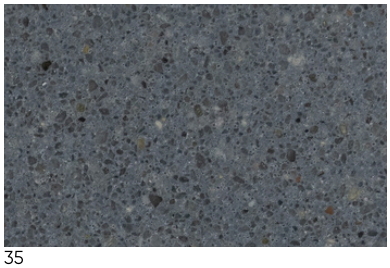

Rouge Nice

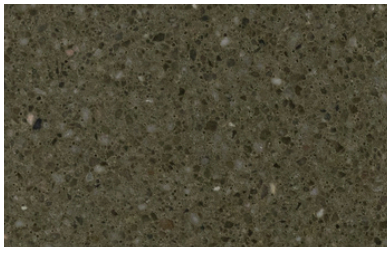

Chocolat

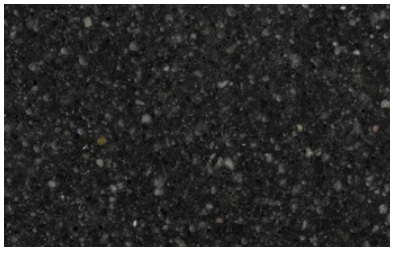

Gris clair


Gris fer

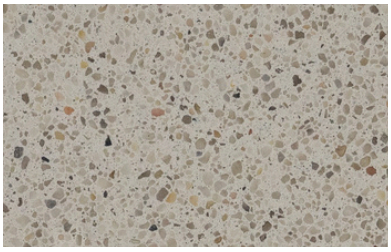

Antimoine

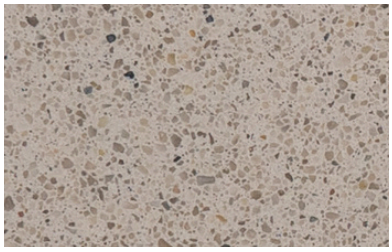

Silex

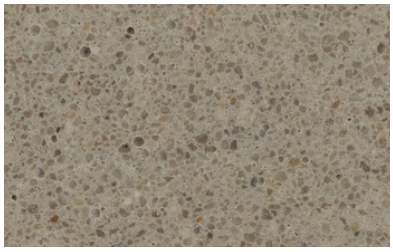

Gris vert

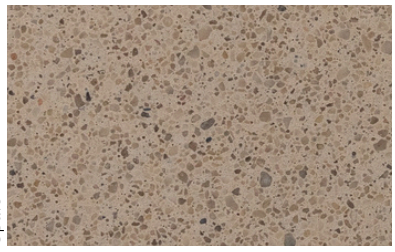

Anthracite

Finition adoucie


Glacier

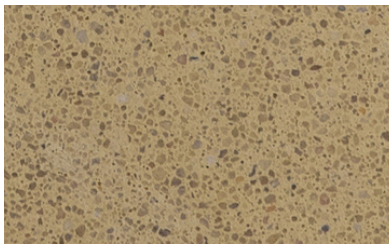

Craie

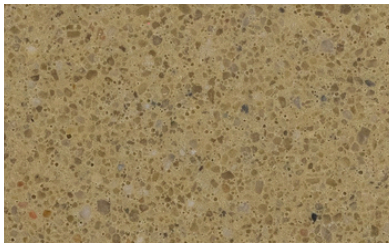

Ivoire

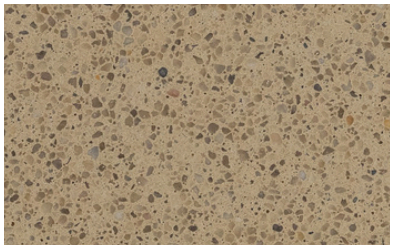

Opale

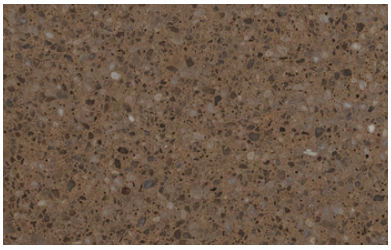

Portland


Corail

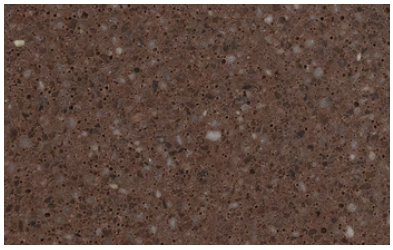

Jaumont

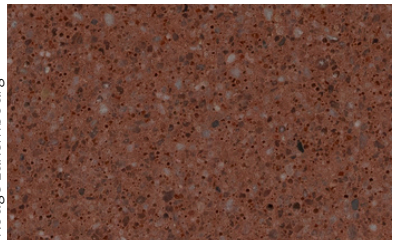

Tuffeau

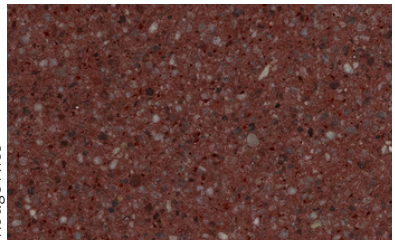

Corindon

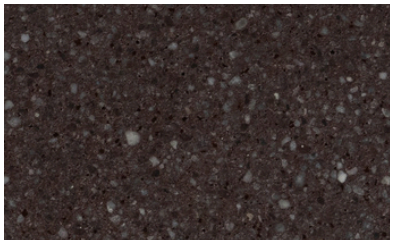

Sahara

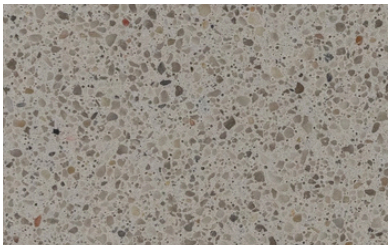

Camel


Tourbe

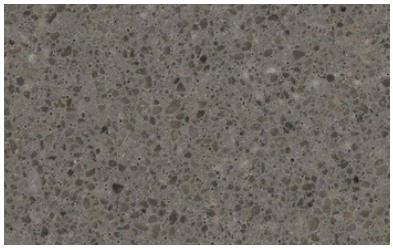

Rouge Luxembourg

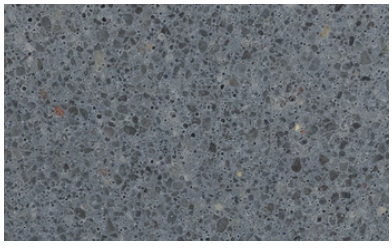

Rouge Nice

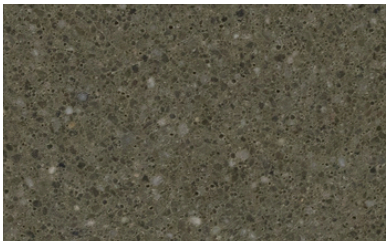

Chocolat

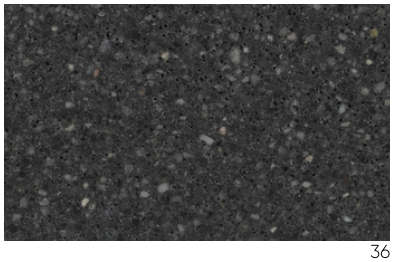

Gris clair


Gris fer


Antimoine

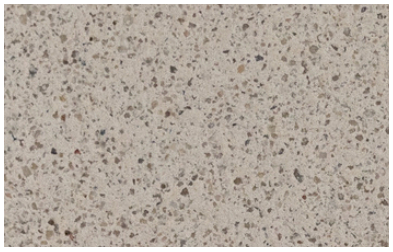

Silex


Gris vert

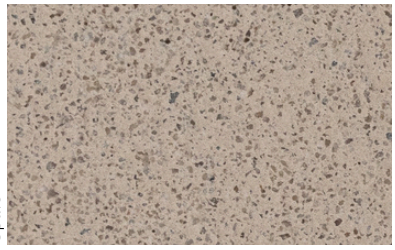

Anthracite

Finition pierre moyen brossé


Glacier

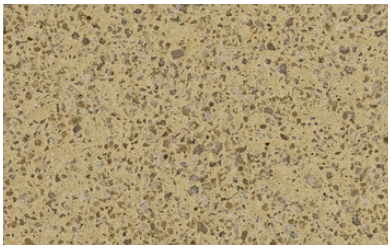

Craie


Ivoire

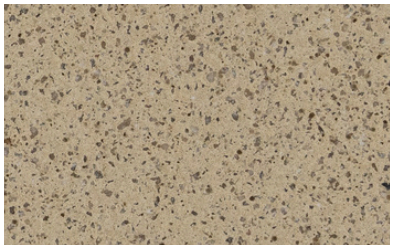

Opale


Portland


Corail


Jaumont


Tuffeau

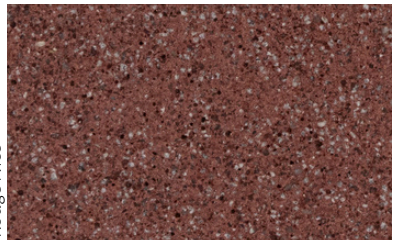

Corindon

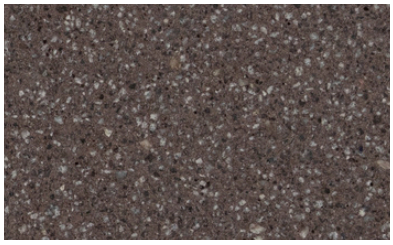

Sahara


Camel


Tourbe

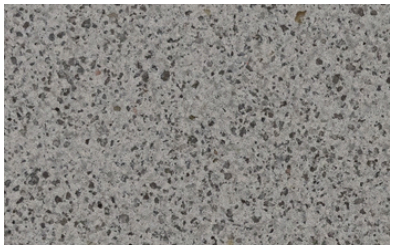

Rouge Luxembourg


Rouge Nice


Chocolat

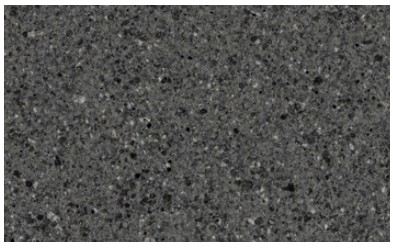

Gris clair


Gris fer


Antimoine


Silex


Gris vert


Anthracite



Applications

ACRYTHERM® R is a mineral cladding designed to effectively meet the common configurations of façades, while delivering the precision and quality characteristic of Rebeton.
Corners, reveals, sills, straight or curved façades, soffits, custom elements – every application benefits from simple, consistent, and controlled installation.

Horizontal installation

Horizontal installation stretches the volumes and emphasizes the continuity of the façade. It creates a regular, contemporary rhythm in harmony with the building's scale. The horizontal lines stabilize perception and reinforce the building's base, resulting in a clear and confident architectural expression.





Vertical installation

Vertical installation gives the façade a tall, structured appearance. It accentuates the building's height and emphasizes slender proportions. Continuous lines guide the eye, establishing a clear, restrained, and controlled rhythm—a graphic choice that highlights the verticality of the architecture.



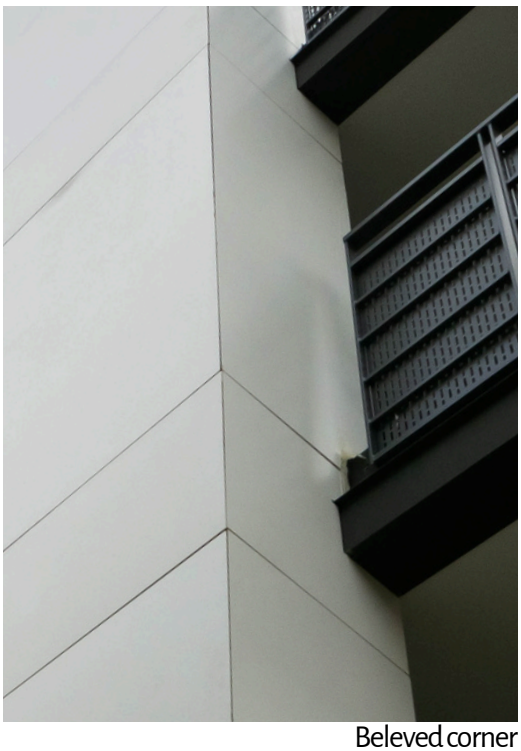


Corners

Corners structure the reading of a façade. With ACRYTHERM® R, they are handled with precision thanks to various cutting and assembly options, tailored both to the geometry of the project and the requirements of installation.



Crossed corner



Beleved corner



6x6 corner



Monobloc corner

Around windows

Openings offer numerous possibilities for expression. With ACRYTHERM® R, the claddings around windows can take on a variety of looks. Cuts are adjusted with precision, and alignments remain sharp, ensuring a controlled integration regardless of the style desired.



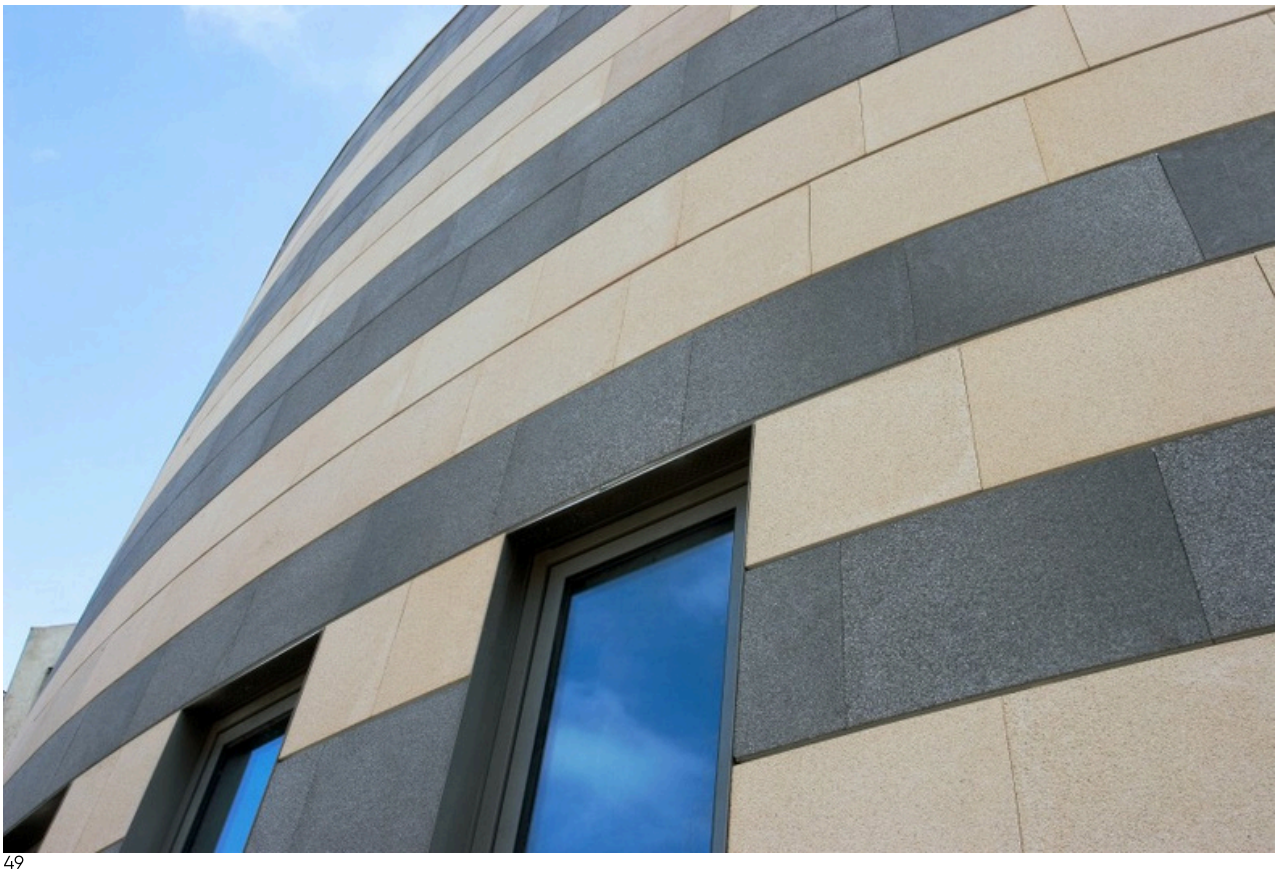




Curved panels

Some façades require curved lines. Thanks to bespoke manufacturing, ACRYTHERM® R panels can be produced with a curvature to match radii starting from 200 mm. Combined with an adjustable substructure, they allow the creation of smooth, curved surfaces with regular continuity and straightforward installation.





Underside installation

Horizontal returns and undersides can be clad in continuity with the façade. ACRYTHERM® R allows these areas to be treated with the same alignment precision and consistent joint regularity.

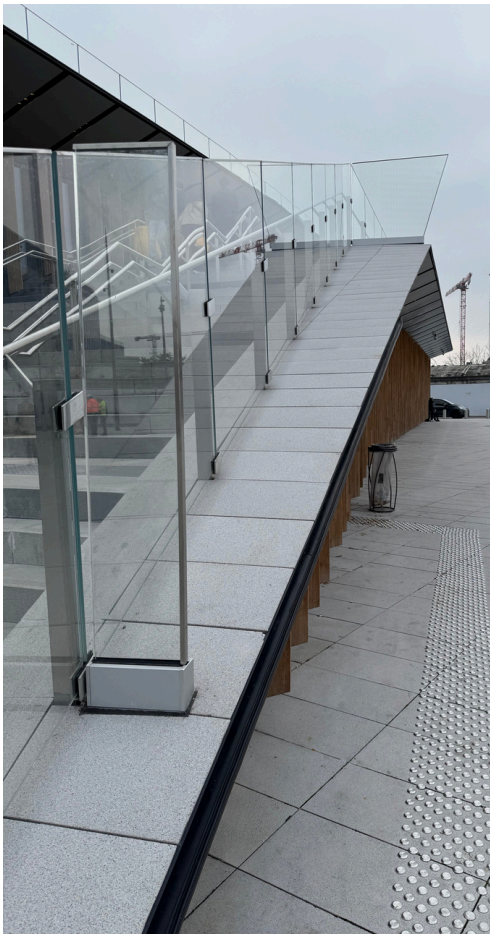






Inclined installation

Inclined installation is an architectural choice that changes the perception of the façade. The lightness of ACRYTHERM® R panels facilitates this configuration and reduces constraints on the supporting structure, which can then be adjusted to ensure precise layout and overall stability.







Special pieces

The unique features of a building sometimes require custom adaptations. ACRYTHERM® R allows the production of bespoke panels to ensure a precise and refined finish.









Rebeton expertise

Bespoke without compromise

At Rebeton, bespoke is not an option—it's our way of working. Each panel is designed from the project plans and manufactured piece by piece, with the precision that defines our signature.

▶ Perfect fidelity to the original design and seamless integration within the architecture.

Optimized manufacturing, designed for the site

Producing bespoke panels does not mean added complexity; on the contrary, it ensures efficiency and reliability:

. production of only the necessary pieces → less waste, preserved resources.

. panels machined and cut in the workshop, delivered ready to install.

. tailored logistics → custom packaging and calibrated deliveries.

▶ Performance is also measured in time saved and simplified site work.

Zero constraints for installation

Custom fabrication simplifies daily work on site:

. fewer cuts and handling,

. reduced risk of errors,

. faster, more consistent, and secure installation.

▶ An organization that helps meet deadlines and ensures a result perfectly in line with expectations.

A flawless organization

Rebeton also relies on a committed team throughout the project:

. technical support and adaptation to installation constraints,

. production tracking tools for complete traceability,

. management of scheduling and delivery sequences.

▶ Thanks to this rigorous organization, we ensure seamless continuity: no delivery errors, no interruptions in the workflow, and total reliability right through to the completion of the project.

How ACRYTHERM®
reduces your carbon footprint ?

Proven durability

→ **50-year** reference lifespan, with no replacement or heavy maintenance required.
→ A façade that lasts means less material consumed and lower cumulative emissions.

Responsible manufacturing

→ **Made-to-order production:** no overproduction, no unnecessary waste.
→ Manufactured in France, certified according to the NF EN 15804 standard.

Controlled lightness

→ **35 kg/m²** for 15 mm thickness.
→ Less transport, less installation energy, less CO_2.

Optimized life cycle

→ Global carbon footprint: **50 kg CO_2 eq/m² over 50 years.**
→ Recycling of the aluminium framework: –7.6 kg CO_2 eq/m² at end of life.

Minimal maintenance

→ No treatment, no painting, just simple water cleaning.
→ A façade that retains its brilliance without energy-intensive upkeep.

Less material, less transport, less maintenance:
ACRYTHERM® extends the lifespan of buildings
while reducing their carbon footprint.

References

Collège de Sèvres – AIA Life Designers – AA'E Architectes Associés – Project owner: Conseil Général des Hauts-de-Seine
Université Catholique de Lyon, Campus Saint-Paul – Garbit et Blondeau Architectes
Gare Saint-Denis Pleyel – Kengo Kuma & Associates – Project owner: Société des Grands Projets
Gare de Villejuif – Gustave Roussy – Dominique Perrault Architecture and Gaëlle Lauriot Prevost – Project owner: Société des Grands Projets – Photographer: Jad Sylla
CERN European Organization for Nuclear Research, Geneva – Project owner: CERN
Etap Hôtel, Bussigny, Switzerland – Arcobat
Renovation of Théâtre National Populaire, Villeurbanne – Fabre et Speller – Arassociati
Complexe sportif Pajol, Paris – Brisac Gonzalez – Project owner: Direction de la Jeunesse et des Sports
Terralta, Lyon – SOHO Architecture – Project owner: EUROSIC
Centre Hospitalier William Morey, Châlon-sur-Saône – Brunet Saunier Architecture – Project owner: Centre Hospitalier William Morey
Student residence Les Gazelles, Aix-en-Provence – Castella Architecte – Project owner: 13 Habitat
Office tower, Belo Horizonte, Brazil – João Armentano Architect
Casino Riviera, Cagnes-sur-Mer – IN-C Ingénierie et Coordination – AAPL Agence d'architecture Pascal
Mixed-use school, Vaison la Romaine – Jérôme Siame – Project owner: Conseil Régional
Centre Hospitalier de Douai – Brunet Saunier & Associés – Project owner: Centre Hospitalier de Douai
Palais de Justice, Laval – RRC Architectes – Project owner: Ministère de la Justice
Extension Abilio Barreto Historical Museum, Brazil – Álvaro Hardy
Extension Hôpital de Narbonne – Groupe 6 Architectes – Project owner: Centre Hospitalier de Narbonne
Office building, 52 avenue Hoche, Paris – FS Braun & Associés – Project owner: Eurosic
Centre Hospitalier Saint Joseph, Marseille – Archipel Architectes Associés – Project owner: Fondation Saint Joseph

Contact

contact@rebeton.com
+33 (0)3 84 58 65 88

Production Site & Sales Department
ZA Lagrange
90150 Bethonvilliers - France

Headquarters
72 rue du Faubourg Saint Honoré
75008 Paris - France

www.rebeton.com