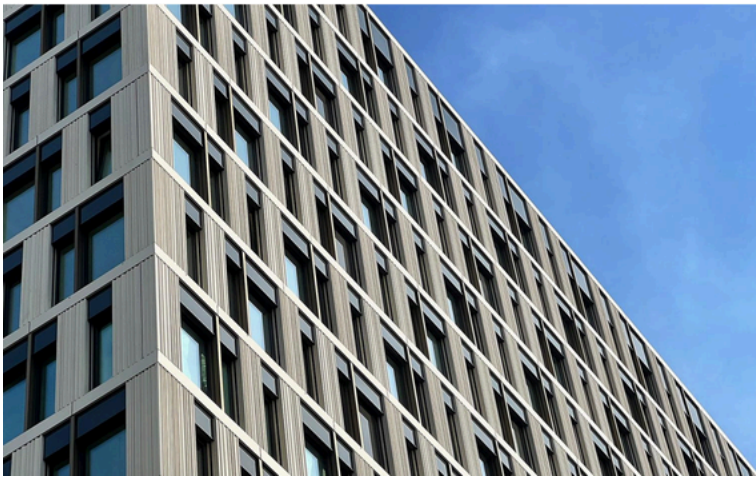
REBETON





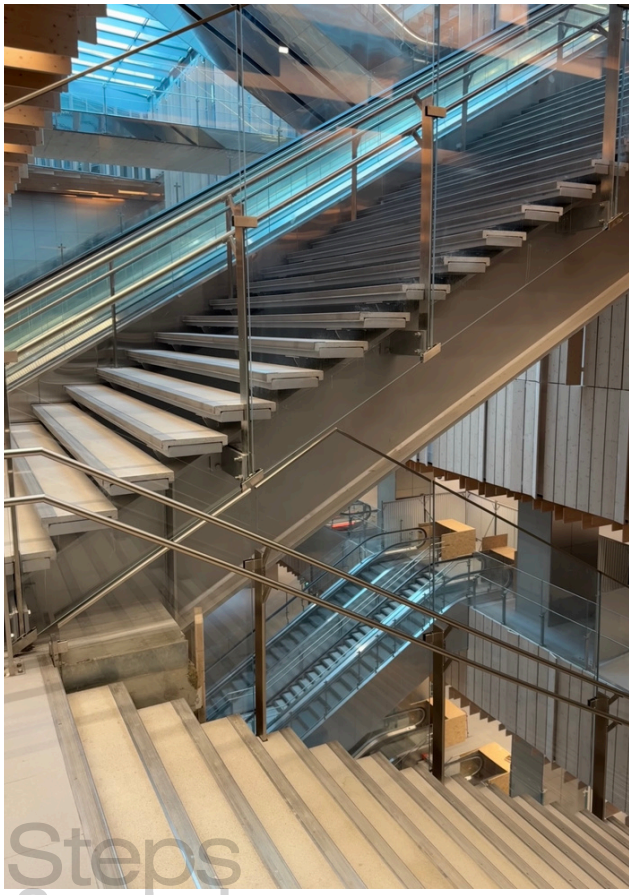


ACRYTHERM® D.

mineral cladding with inserts

Facades





Steps
& staircases



Photographe Jad Sy

Flooring

When material becomes an architectural language

At Rebeton, we believe a material is more than its function: it must express intent.
Our name may evoke concrete, but our material is its antithesis.

We craft a mineral composite made of quartz and methacrylate resin: a dense, stable, and durable material designed for architecture. Our made-to-measure mineral panels are not just construction elements—they are true surfaces of architectural expression. Façades, floors, urban furniture, steps, and staircases: wherever architecture unfolds, our creations find their place.

For over forty years, we have been transforming quartz into a demanding and expressive material, capable of revealing light, engaging with space, and standing the test of time.

Our expertise combines the strength of mineral, technical precision, and the freedom of customisation. Each panel is designed and manufactured piece by piece, project by project, to serve the original vision without compromise.

We stand by a simple belief: a panel is not a secondary detail—it is a foundational gesture. It gives rhythm to a façade, fluidity to a building, and grounding to a public space. It transforms a function into an experience, a place into a lasting landmark.

At Rebeton, mineral becomes language, and every project carries its own signature.

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Our material



ACRYTHERM®, a unique material

Composed of 90% quartz of varying grain sizes and a high-performance methacrylate resin, our ACRYTHERM® mineral panels combine the strength of the material with engineering precision. Through-body mineral pigments give them a richness of colours, textures, and finishes, achieving a level of uniformity rarely found in natural materials.



Fully integrated, 100% French manufacturing

Formulation, moulding, machining, textures: every step is controlled at our Bethonvilliers facility.
This complete oversight ensures consistent quality, reliable repeatability, and the flexibility of made-to-measure production, even for large-scale projects.

FABRIQUÉ EN FRANCE

Proven technical performance

Near-zero porosity
→ Exceptional durability with maintenance limited to simple water cleaning.

Outstanding strength-to-weight ratio
→ Allows extra-large formats without overloading the supporting structure.

Proven durability
→ Maintains stability against impacts, UV exposure, and harsh weather, even in the most demanding environments.

Made-to-measure at the core

Unlike standardised materials, ACRYTHERM® is crafted panel by panel, project by project.
Dimensions, shapes, textures, reliefs: each panel is manufactured to plan, faithfully reflecting the architectural intent and technical requirements.
It is a guarantee of architecture without compromise, where the material adapts to the vision, not the other way around.



Optimised manufacturing in support of projects

Rebeton's made-to-measure approach means producing only what is needed: fewer waste materials, reduced offcuts, and controlled resource consumption. The panels are delivered ready for installation, accelerating on-site work. With tailored packaging and calibrated deliveries, the workflow remains smooth, keeping pace with the construction schedule without delays or errors.





The ACRYTHERM® D. system

ACRYTHERM® D is a ventilated, made-to-measure mineral cladding solution designed for each project. The panels, fitted with factory-integrated inserts, are clip-fixed onto a supporting subframe. This construction system ensures a perfectly aligned façade without visible fixings, while enabling fast and secure installation on site.

Manufacturing process

Each panel is produced through a unique process:

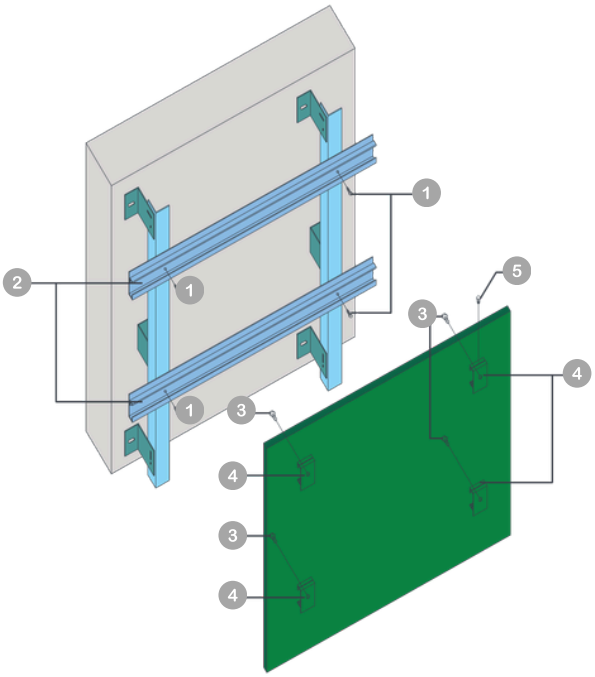
- Standard thickness of 15 mm, ensuring perfect uniformity.
- **Integration of Rebeton-developed inserts,** cast into the material to form a single, unified element. Performance validated by pull-out tests of 200 to 300 kg.
- **Precision machining,** allowing the assembly of multiple panels without limitation on complexity.
- **Controlled bending,** according to defined angles or radii, to accommodate curved façades and unique volumes.

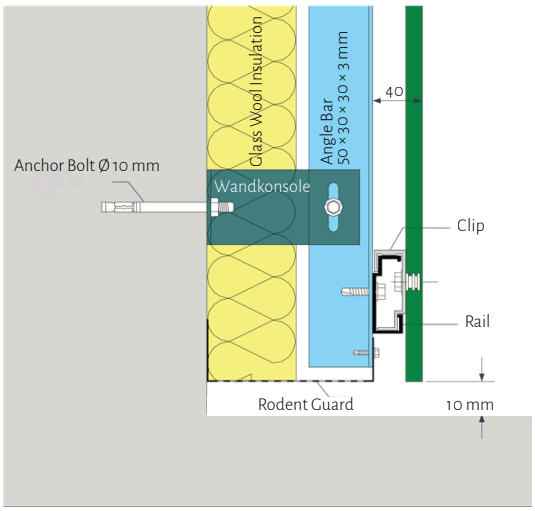
Unmatched key benefits

Consistent quality: stable tolerances with no production deviations.
Reliable inserts: cast into the material, providing near-absolute safety.
Rebeton innovation: an exclusive process that sets ACRYTHERM® D apart from all competing solutions.
Architectural freedom: supports complex assemblies, oversized panels, custom bending, and specialised machining.

With ACRYTHERM® D, design gains freedom, installation becomes simpler, and the building benefits from safety and long-term durability.

Principe & Installation





1. Self-Drilling Screw (Ø 6.3 x 22 mm)
2. Standard Rail D
3. Stainless Steel Bolt M8 x 16
4. Clip
5. Locking Screw (self-drilling Ø 6.3 x 22 mm)

Mechanical properties

	Test method	Value	Unit
Apparent density	DIN 53 479 - NF EN 14617-1	2.3	
Flexural strength	DIN 1164 - NF EN 14617-2	≥ 20	N/mm2
Compressive strength	DIN 1164	≥ 130	N/mm2
Modulus of elasticity (E)	DIN 53 547	≥ 13000	N/mm2
Shore D hardness	DIN 53 505	> 80	
Ball compression hardness	DIN 53 456	≥ 210	N/mm2
Thermal conductivity	DIN 56 612/1	2	W/m.k
Dimensional stability to heat	DIN 53 461/A	≥ 90	°C
Linear thermal expansion coefficient	VDE 0304/1	1.7	10 - 5 /°C
Water absorption	DIN 53 495	< 0.1	%
Fire reaction classification	Euroclass NF EN 13501-1 + A1 : 2013	A2-S1-d0	
Frost resistance		Frost-resistant	



Fixing

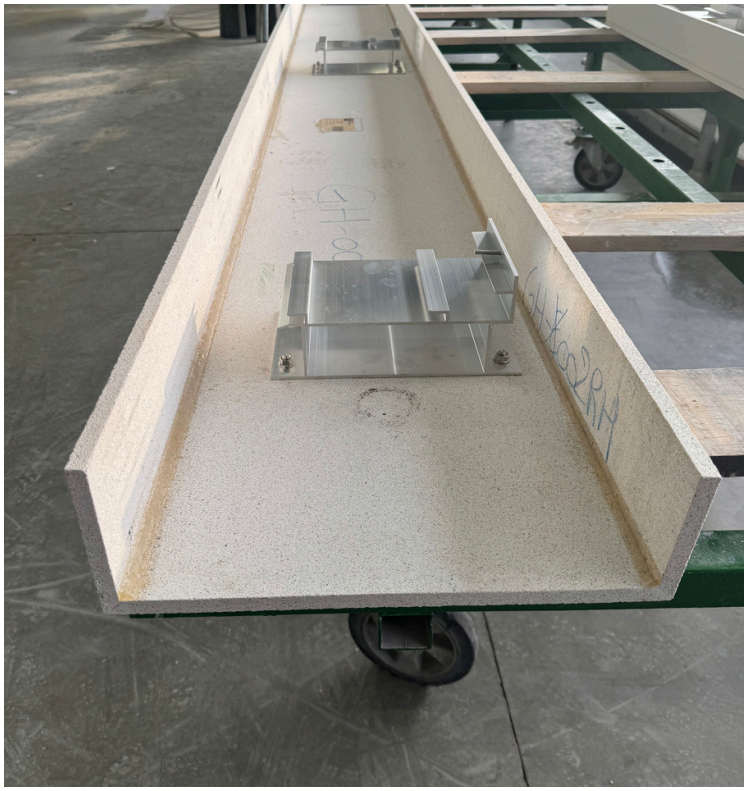
Adapt the panel to the system, not the other way around

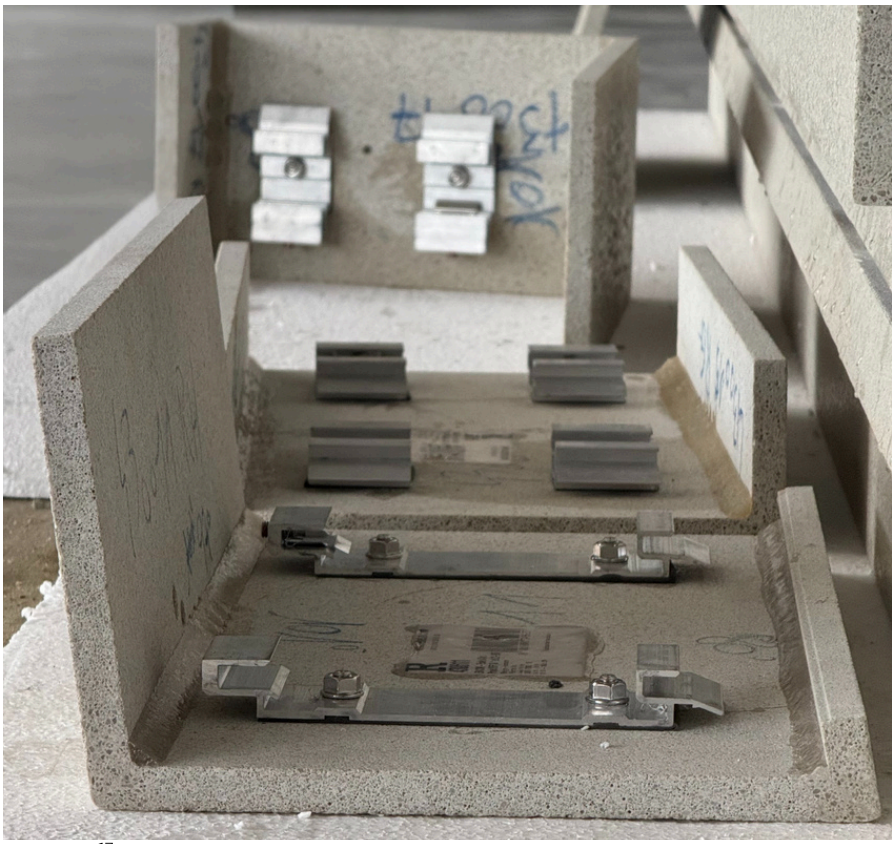
Each project has its constraints.
When the geometry, grid, or supporting structure deviates from standard configurations, ACRYTHERM® D adapts.

Whether the panels are fixed on rails, frames, or metal profiles, each one is designed and factory-equipped with the anchoring system corresponding to the intended installation method. This made-to-measure approach ensures compatibility with the substructure, simplifies installation, and reduces on-site adjustments.
The design and manufacturing process is governed by the ACRYTHERM® D Technical Approval (Avis Technique), and for highly specific projects, may be validated through an ATEx. The system's performance and areas of application are documented and assessed according to CSTB standards, providing a reliable technical framework for specifying and implementing custom solutions.

A technical solution designed for your needs, controlled down to the fixing.











Colours & finishes

A material revealed through colour

ACRYTHERM® is based on a natural ivory base, derived from the purity of quartz. From this noble material emerges a refined colour palette, created with mineral pigments — iron oxides, titanium dioxide — known for their exceptional resistance to UV and harsh weather conditions.

The result: deep, uniform shades that retain their brilliance over time, enhancing the architectural expression of façades.

All the shades of the mineral

The ACRYTHERM® colour chart offers a wide variety of shades, allowing for the expression of any architectural intent: bright and light tones, natural mineral hues, and more intense shades to emphasize a building's identity.

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



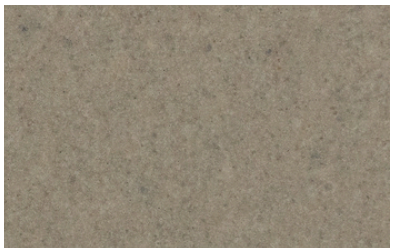
REBETON is featured on **Matériaux.archi**, the material library for architects and specifiers. This presence underscores our commitment to sustainable and innovative architecture.

www.materiau.archi

Finition brillante

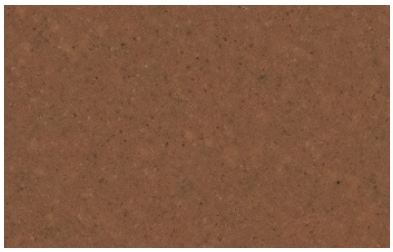

Glacier


Craie

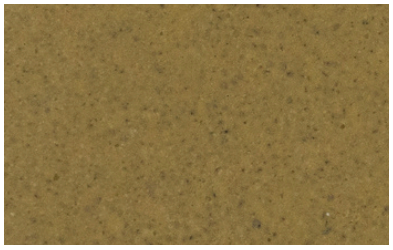

Ivoire


Opale


Portland


Corail

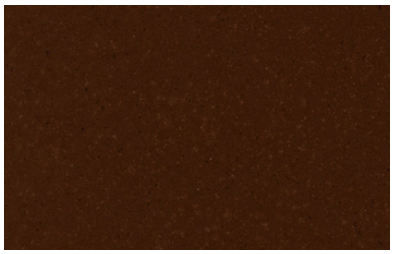

Jaumont

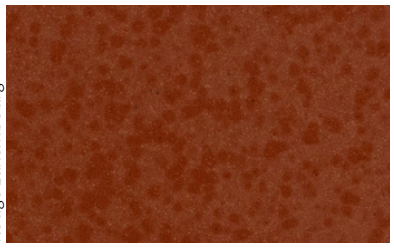

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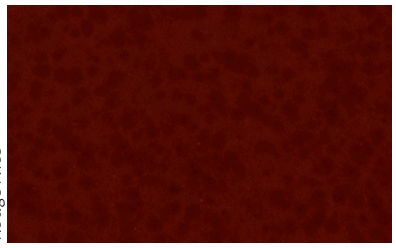

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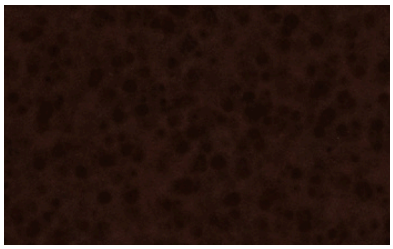

Sahara


Camel


Tourbe

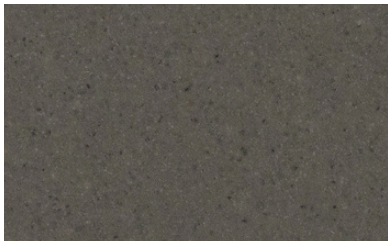

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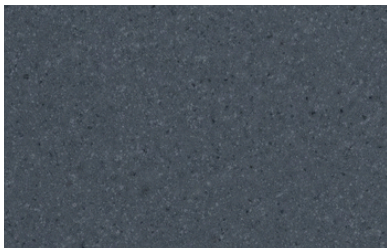

Rouge Nice

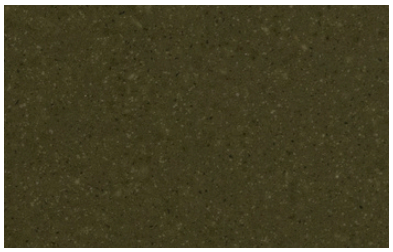

Chocolat


Cris clair


Cris fer

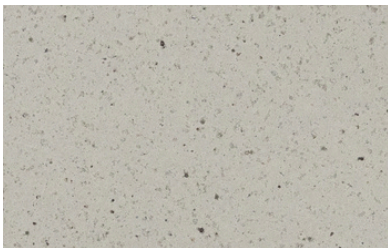

Antimoine


Silex


Cris vert


Anthracite

Finition pierre extra fin


Glacier

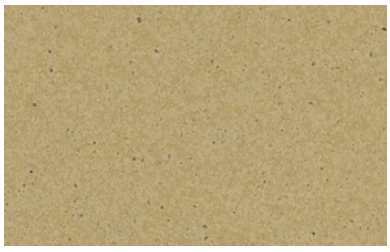

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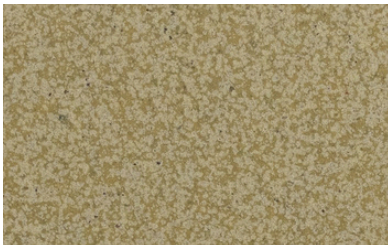

Ivoire


Opale

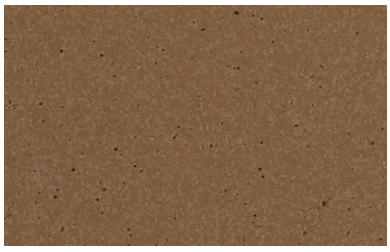

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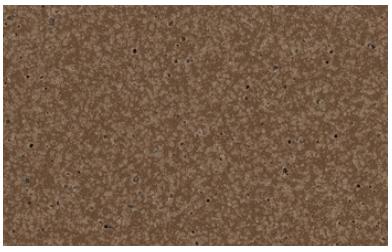

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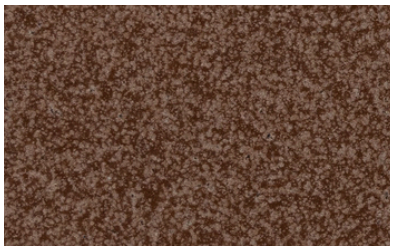

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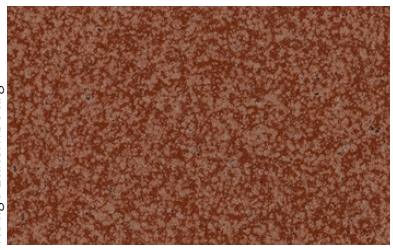

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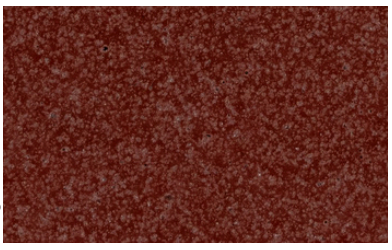

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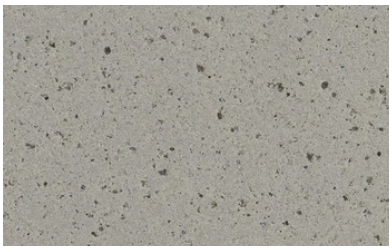

Camel


Tourbe

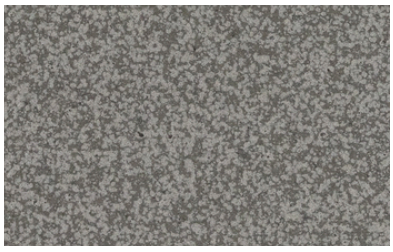

Rouge Luxembourg

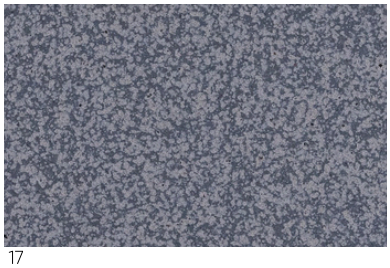

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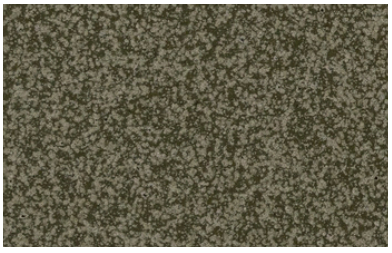

Chocolat

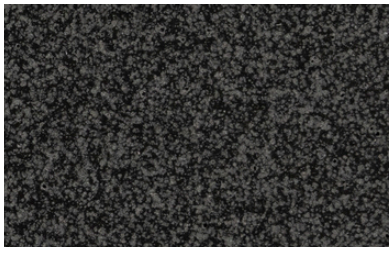

Gris clair


Gris fer


Antimoine


Silex


Gris vert


Anthracite

Finition pierre fin

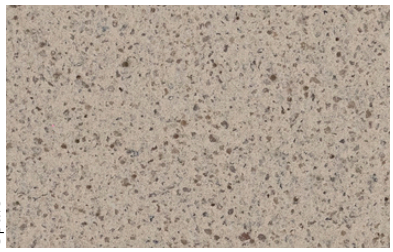


Finition pierre moyen


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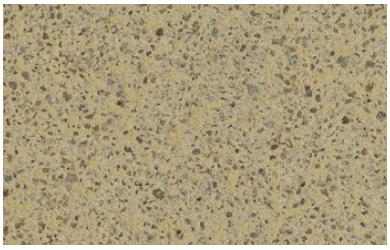

Craie


Ivoire


Opale

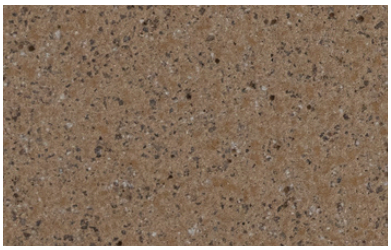

Portland


Corail


Jaumont


Tuffeau

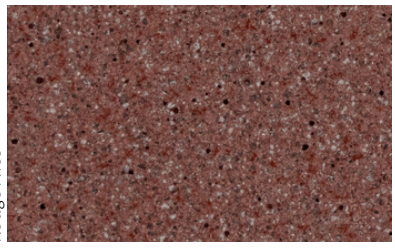

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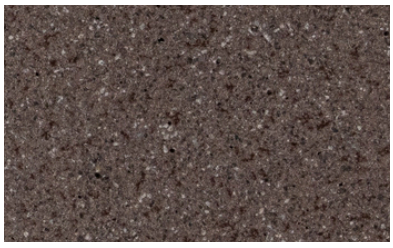

Sahara


Camel


Tourbe

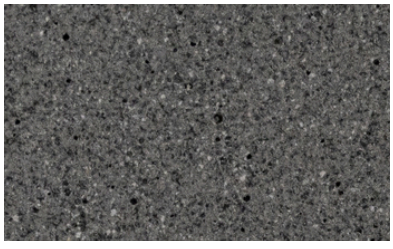

Rouge Luxembourg


Rouge Nice


Chocolat

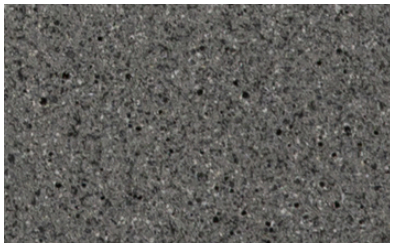

Gris clair


Gris fer


Antimoine


Silex

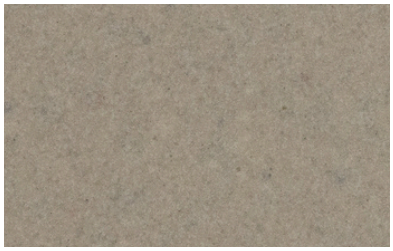

Gris vert


Anthracite

Finition mate

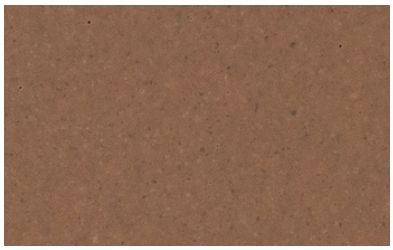

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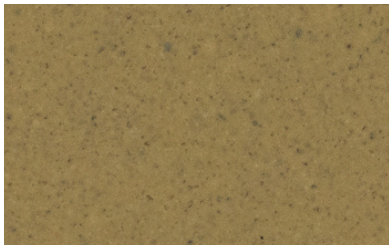

Ivoire


Opale


Portland


Corail


Jaumont


Tuffeau


Corindon


Sahara


Camel


Tourbe

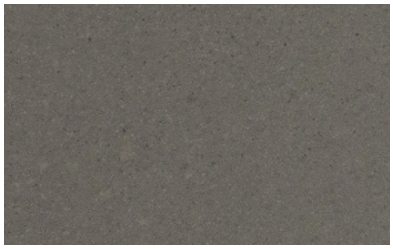

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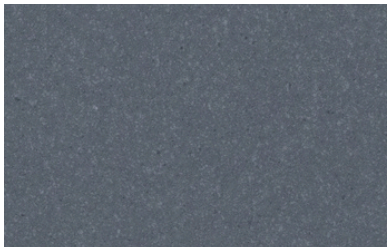

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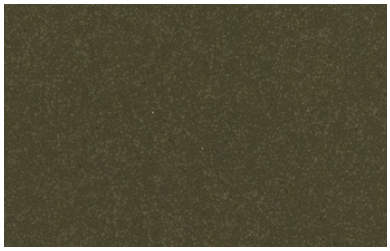

Chocolat


Gris clair


Gris fer

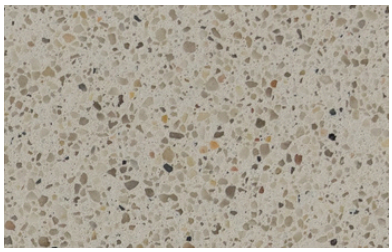

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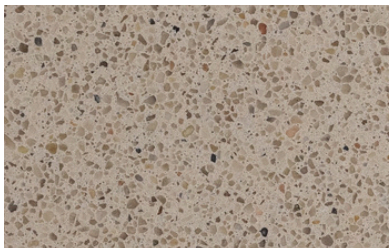

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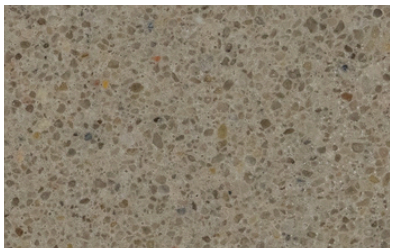

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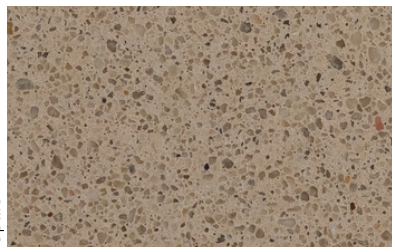

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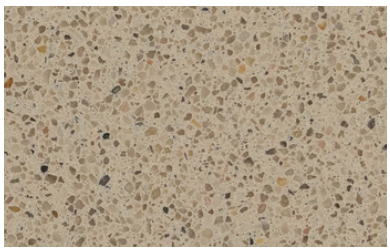
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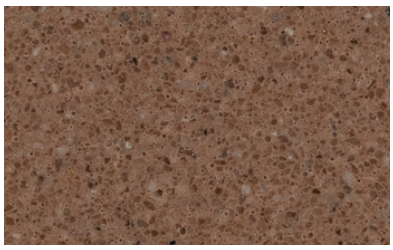

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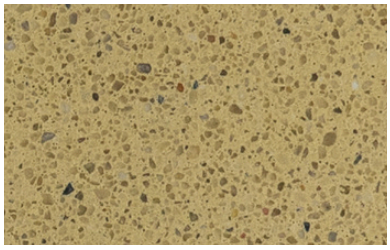

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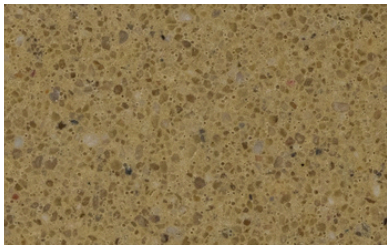

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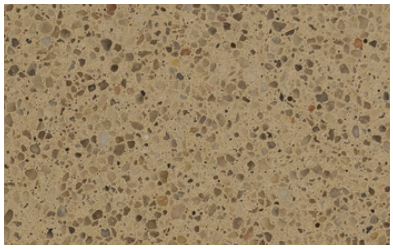

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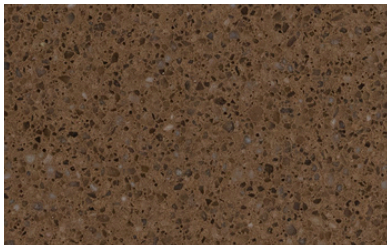

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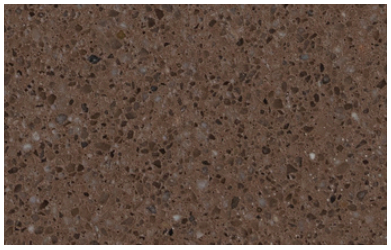

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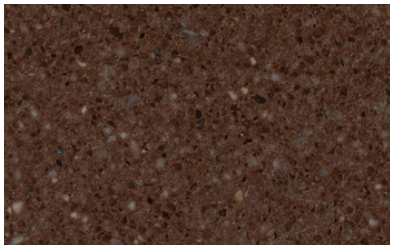

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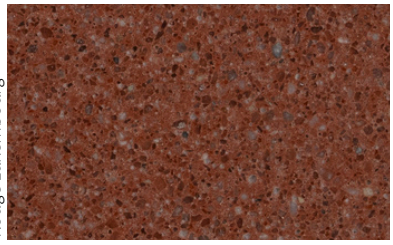

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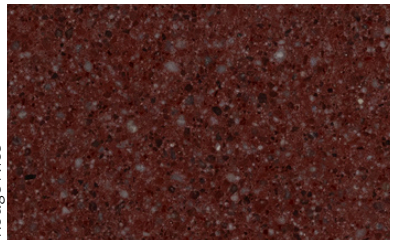

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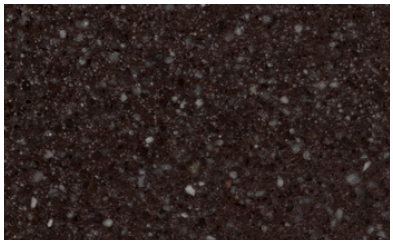

Sahara


Camel


Tourbe


Rouge Luxembourg

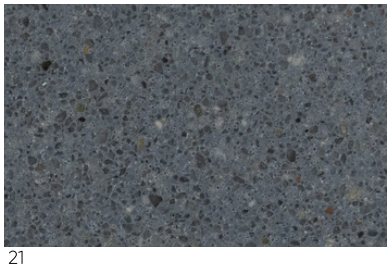

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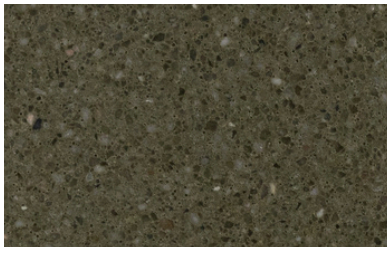

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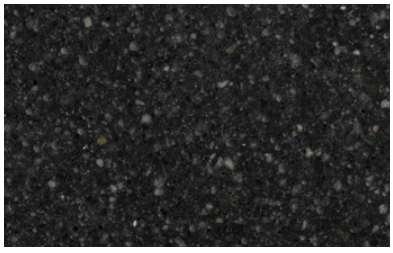

Gris clair


Gris fer

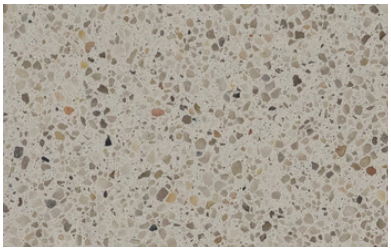

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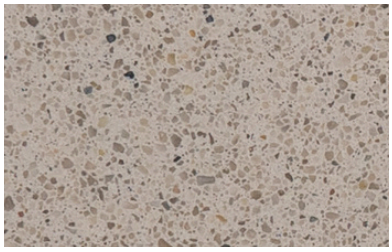

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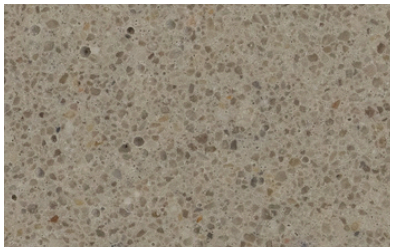

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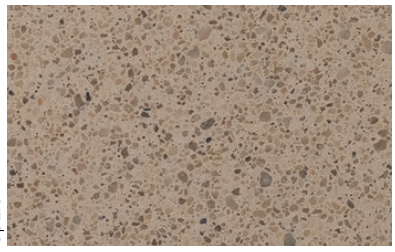

Anthracite

Finition adoucie


Glacier

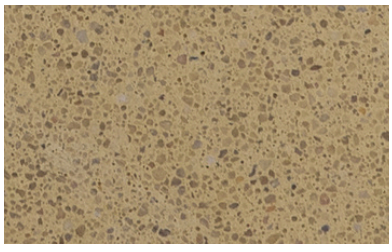

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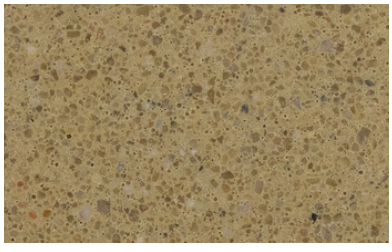

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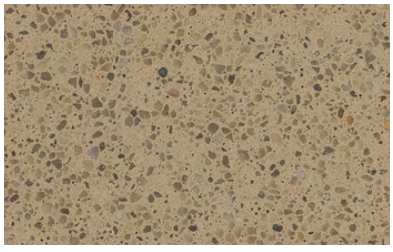

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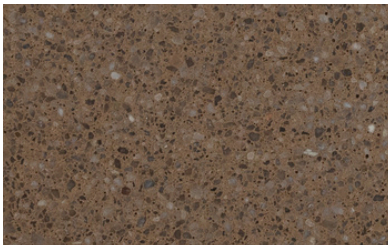

Portland


Corail

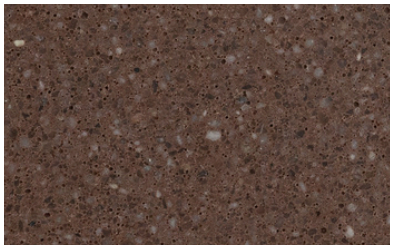

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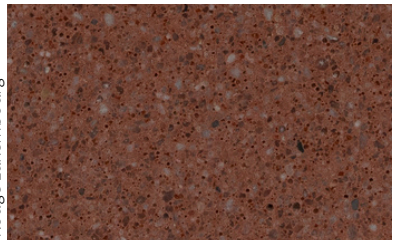

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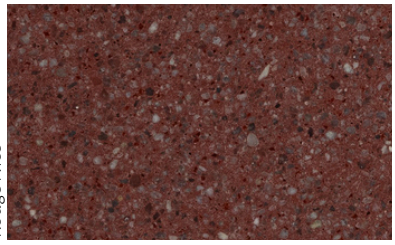

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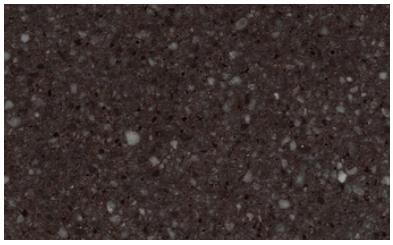

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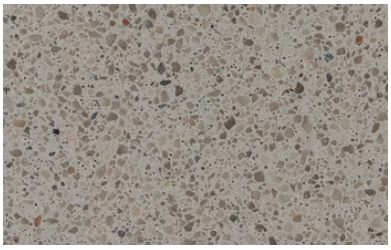

Camel


Tourbe

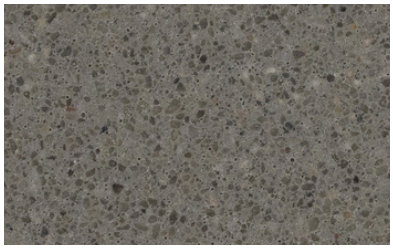

Rouge Luxembourg

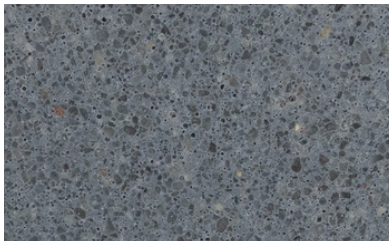

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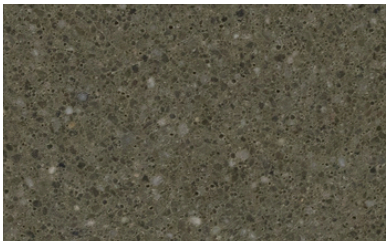

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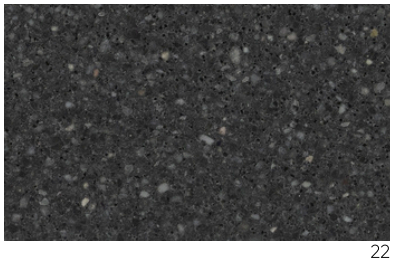

Gris clair


Gris fer


Antimoine

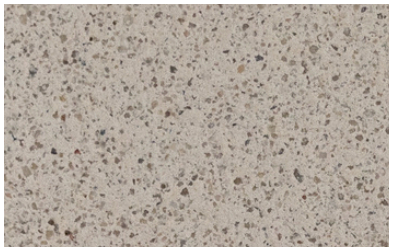

Silex


Gris vert

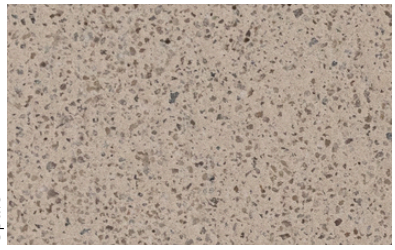

Anthracite

Finition pierre moyen brossé


Glacier

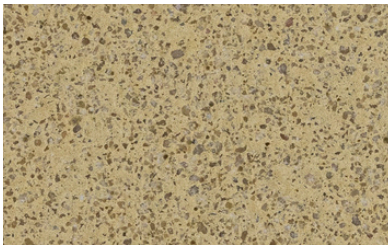

Craie


Ivoire

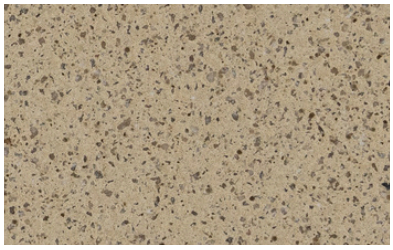

Opale


Portland


Corail


Jaumont


Tuffeau

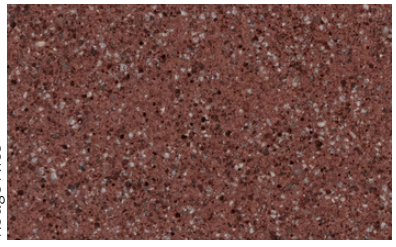

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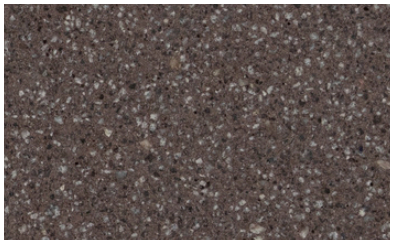

Sahara


Camel


Tourbe

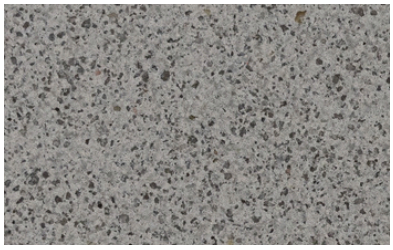

Rouge Luxembourg


Rouge Nice


Chocolat

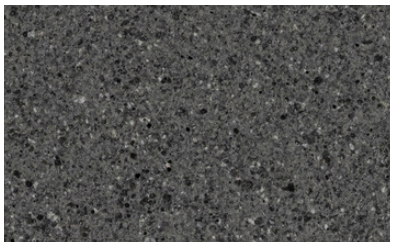

Gris clair


Gris fer


Antimoine


Silex


Gris vert

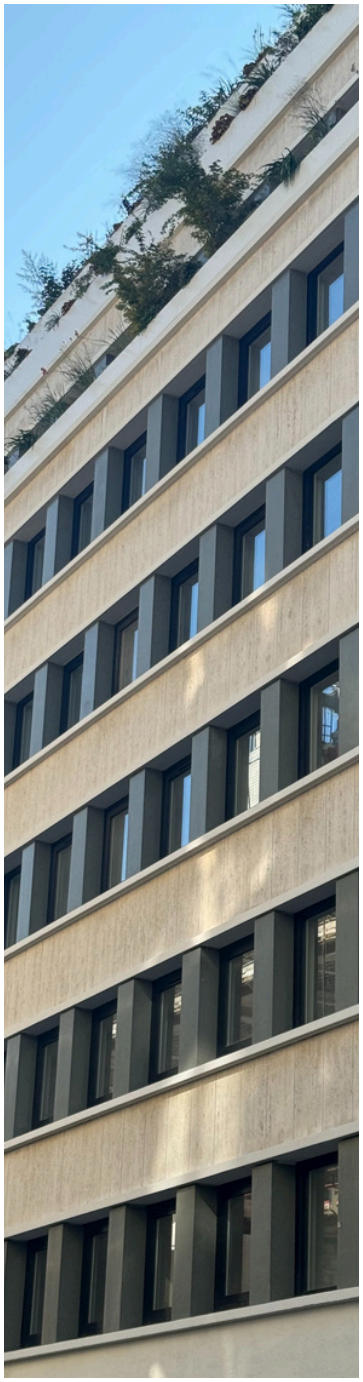

Anthracite



New :
custom terrazzo

Rebeton expands its expertise with the creation of custom terrazzo panels.
This iconic finish, reinterpreted through our processes, allows the creation of unique surfaces blending quartz fragments with colored inclusions. Designed for both façades and floors, the terrazzo provides a strong, timeless graphic expression, with each project benefiting from a personalised formulation: selection of aggregates, dimensions, colours, and finishes.

With this innovation, Rebeton reaffirms its mission: to push the boundaries of mineral materials and offer unprecedented aesthetic freedom.



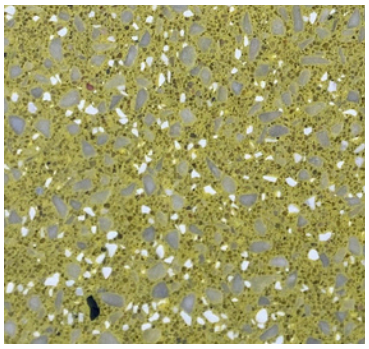


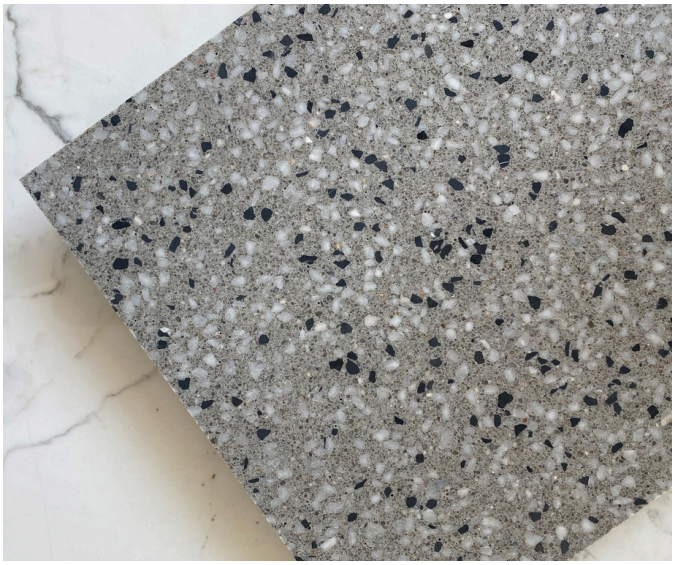


Unleash your imagination

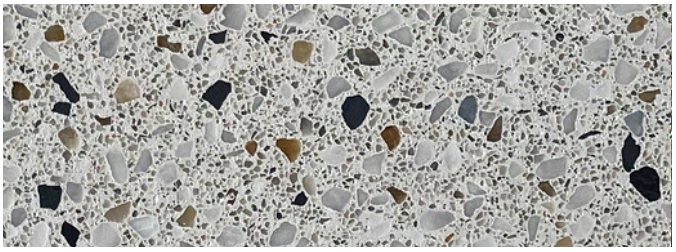
















Applications

ACRYTHERM® D is more than just cladding: it is a made-to-measure solution capable of adapting to all configurations, from the most classic to the most daring.

Soffits, continuous bands, tall panels, curves, textured panels, sunshades, copings, curved monoblock surfaces, ground-floor bases, or inclined installations: every application benefits from the same precision in manufacturing and technical reliability.

Soffit cladding

The soffit is often the first part of a building to be noticed. In a porch or from a low-angle view, it can reveal weaknesses—or, conversely, demonstrate mastery.
With ACRYTHERM® D, this sensitive area gains refinement: perfect flatness, regular joints, and invisible fixings. Access panels, edges, and openings are integrated from the design stage, and precision machining ensures impeccable finishes even in the most exposed corners.

The soffit ceases to be a constraint—it becomes a noble surface, fully integrated into the architecture.







Continuous bands

Bands draw lines across the architectural landscape. They extend, emphasize, or frame, bringing rhythm and continuity.
With ACRYTHERM® D, corners are precise, returns are controlled, and lengths remain continuous without visual breaks. Even expansion joints and segmentations are considered from the design stage to maintain perfect harmony.

The band is no longer a discreet construction element—it becomes a strong graphic line that structures and asserts the architecture.









Tall panels

A monumental façade can sometimes be created with a single gesture: a tall panel that asserts its presence. With ACRYTHERM® D, panels can reach up to 5.20 meters, enabling continuous, striking surfaces. Fewer joints, more continuity: light glides over a uniform material, highlighting the scale and texture of the mineral. Despite their exceptional size, the panels maintain a 15 mm thickness, demonstrating a balance of lightness and robustness.

Large formats are no longer a technical constraint—they become a new scale of architectural expression.



Curved panels

A curve introduces a fluidity that strict geometry cannot achieve. It captures light differently, follows the volumes, and brings movement to the building.
ACRYTHERM® D bending makes these lines possible: consistent radii, defined from the design stage, and compliant with Technical Approvals. Mechanical stability is guaranteed by the process, with no compromise on precision.

The curve is no longer a constraint—it becomes a controlled expression of architecture.





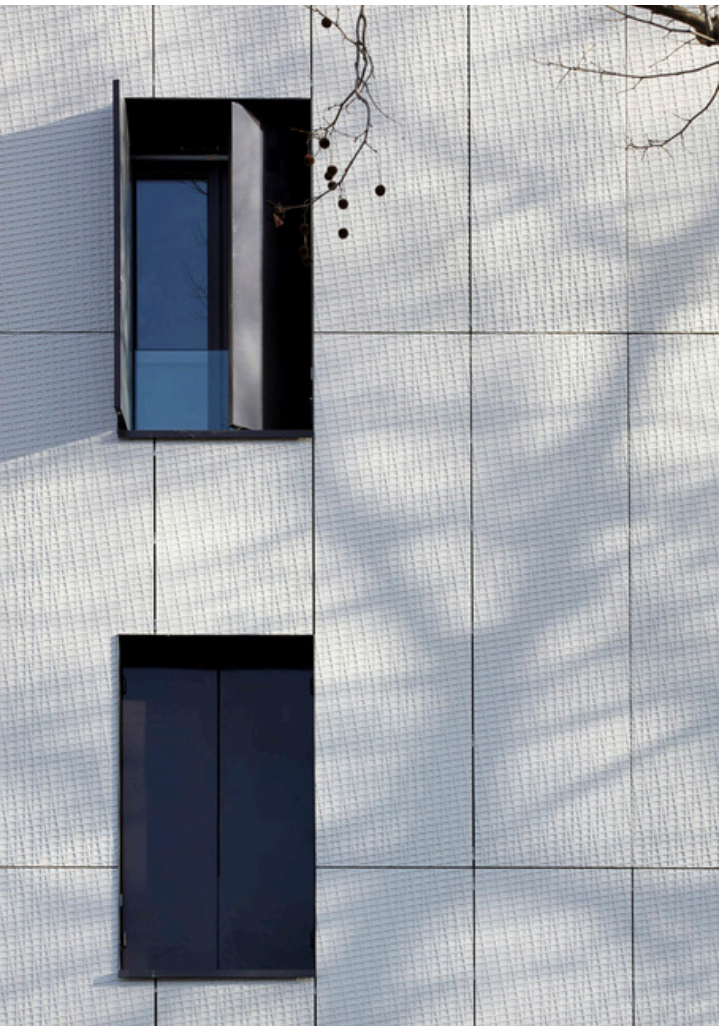


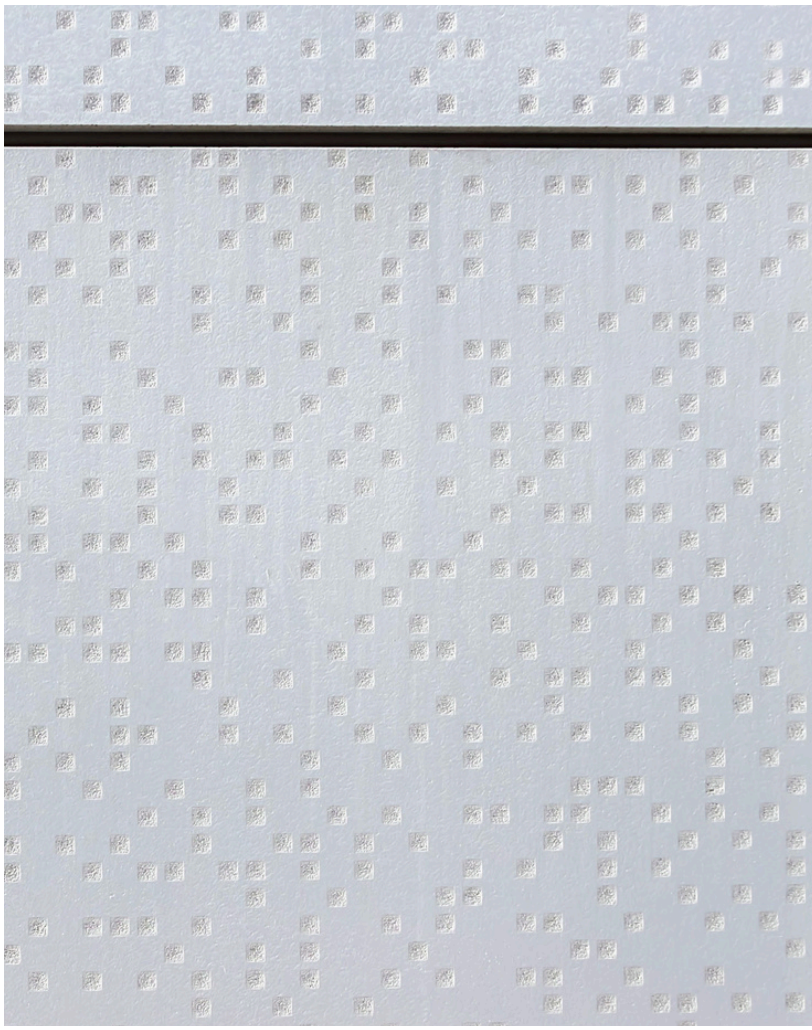


Textured panels

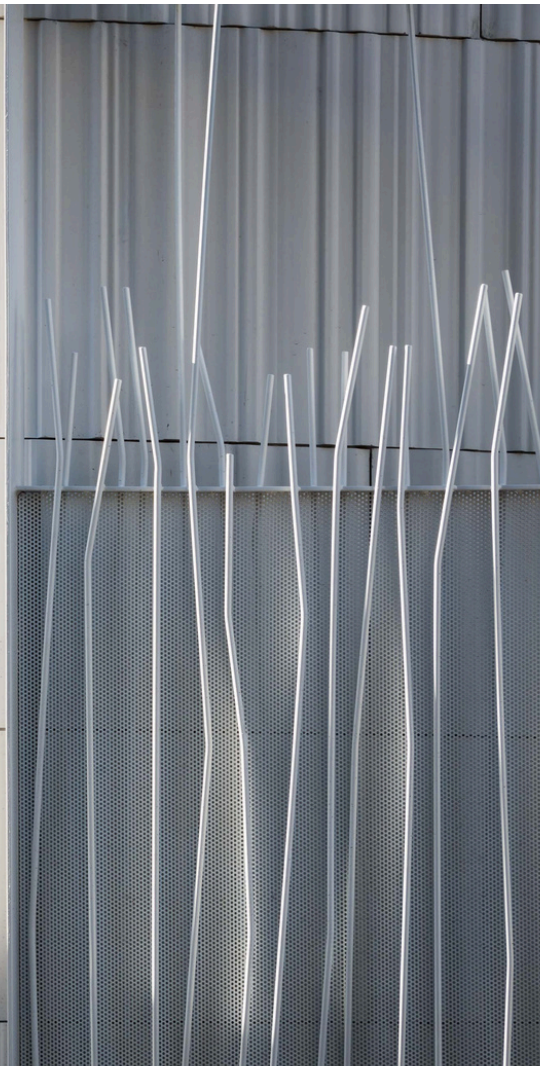
A façade can come alive through its relief. A repeated motif, a grid, or a texture is enough to transform a surface into a living material.
With ACRYTHERM® D, each design is faithfully reproduced at the desired scale. The relief captures light, changes depth throughout the day, and retains its intensity over time. Pitch, orientation, depth—every parameter is controlled for perfect repeatability.

The façade is no longer flat—it becomes an expressive, instantly recognisable surface.







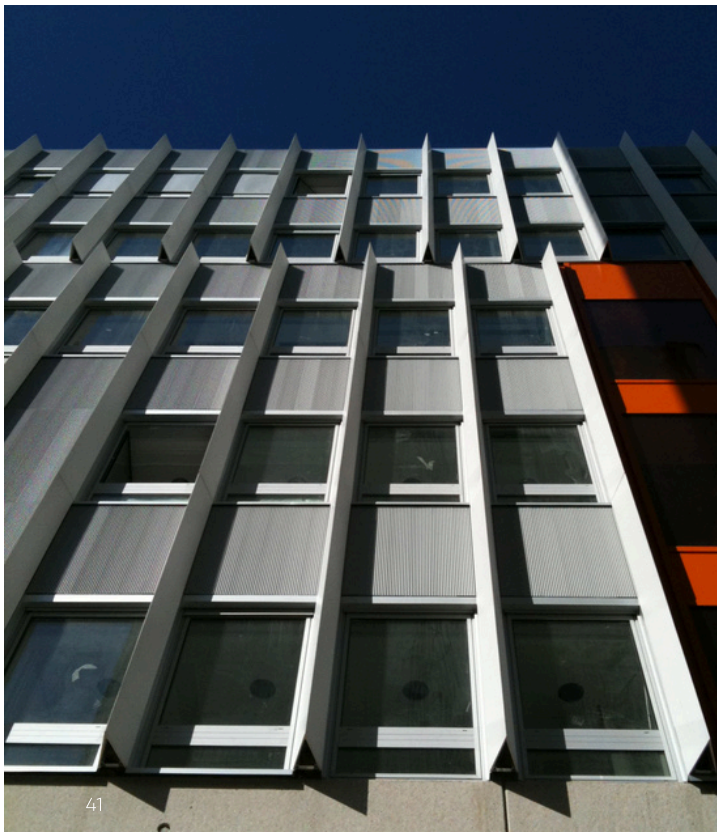


Sunshades

A sunshade is much more than a functional element: it filters, modulates, and choreographs light.
With ACRYTHERM® D, the vertical or horizontal slats integrate seamlessly into the façade. Their role is twofold: providing user comfort indoors and ensuring aesthetic coherence outdoors, thanks to the continuity of colours and textures with the cladding.

The façade is no longer flat—it becomes an expressive, instantly recognisable surface.







Copings

Protect without breaking the line. At the top of a building, every detail matters. Copings protect parapets and low walls, but they must also extend the façade.
With ACRYTHERM® D, the fit is millimetric, perfectly matching the vertical cladding. Protection becomes invisible, serving the continuity of the envelope.

The coping no longer just protects—it extends the line and reinforces the coherence of the façade.





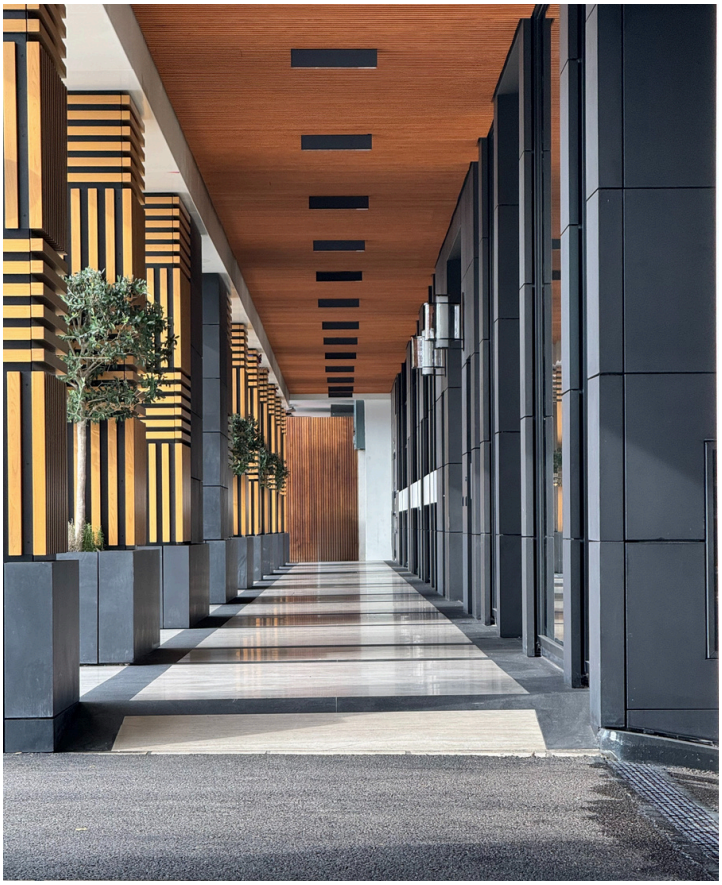


Ground floor

The ground floor is always the most exposed: to impacts, daily use, and proximity to pedestrians.
ACRYTHERM® D provides enhanced resistance at this level, with a Q4 rating option for high-traffic areas. Durability is increased, yet elegance is maintained: colours and finishes align with the rest of the façade to ensure perfect continuity.

The ground floor is no longer a vulnerable zone—it becomes a robust and elegant base.


Plan du site





Inclined installation

Inclination changes everything. It breaks verticality, introduces new rhythms, and casts novel shadows.
Thanks to the lightweight (15 mm) yet robust nature of ACRYTHERM® D, inclined installation is both feasible and safe. Stability is ensured even in unusual exposures, and the façade gains greater expressiveness.

Inclination is no longer a challenge—it becomes a durable, expressive visual signature.







Precision machining

Each panel is a unique piece. ACRYTHERM® D does not rely on standards: every element is tailored to the project's requirements, down to the smallest detail.
Drip edges, technical openings, or specific adjustments—all these customisations are integrated during manufacturing, with strict tolerances and millimetric precision. By reducing on-site cutting and adjustments, installation becomes more reliable, faster, and accurate.

A material designed in the workshop to adapt to the project, not the other way around.



Customization

Made-to-measure at the level of detail.
Customization takes made-to-measure to its fullest expression. On ACRYTHERM® D panels, a name, pattern, lettering, or logo can be engraved directly into the material, creating a lasting imprint of the project.
This is not decoration—it is an architectural intention: extending the design into the material itself, with the same precision and coherence applied to the entire panel.

A way to embed the project into the material, down to the smallest detail.


DTACC
ARCHITECTURE
CARVUNIS
CHOLET
2014


COGEDIM
Velode & Pistre
ARCHITECTES
2022

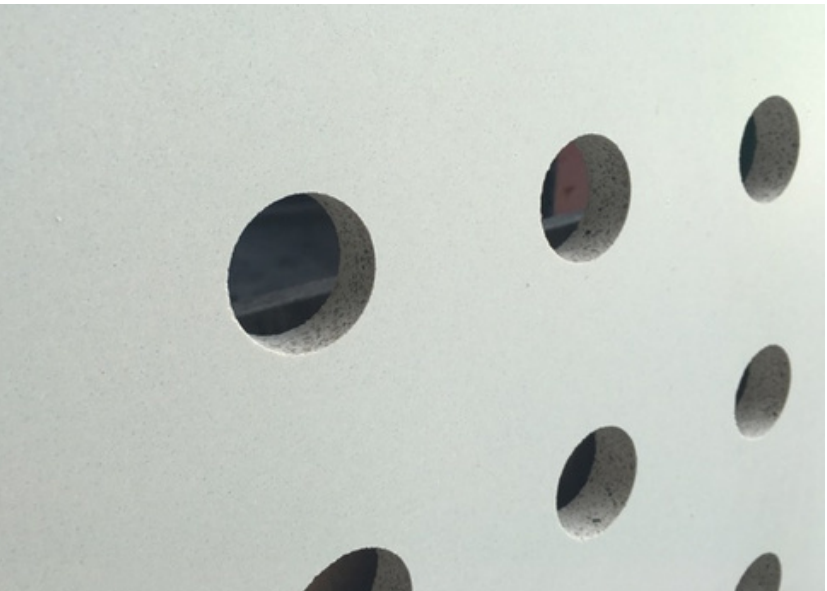

IN GOOD COMPANY

Perforated panels

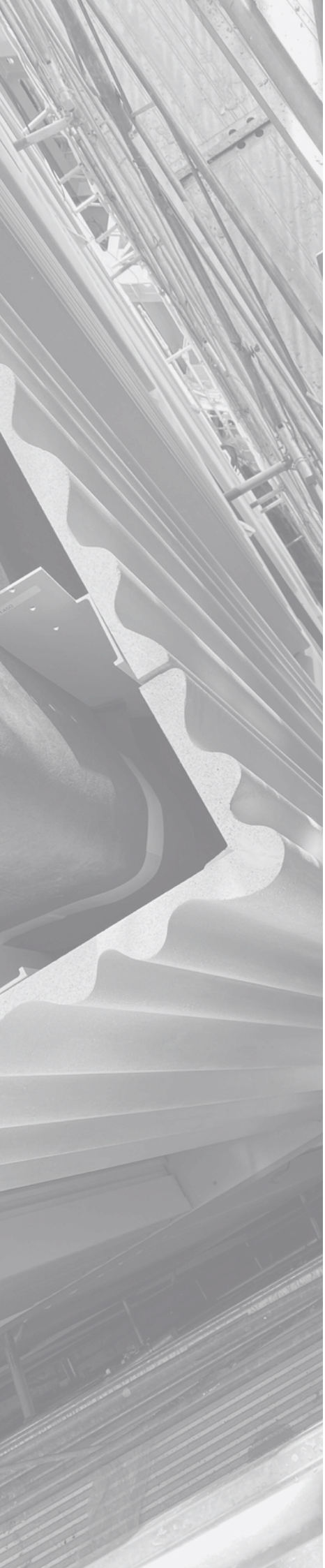
Made-to-measure, perforated panels add relief and lightness to the envelope while preserving the material's strength.
They respond both to an aesthetic intent and to specific technical requirements: ventilation, lighting, safety, or volume management. Each opening and motif is defined from the design stage and machined with the same precision as solid panels, ensuring uniformity and visual coherence.

A controlled solution that combines architectural expression with technical performance.









Rebeton expertise

Made-to-measure without compromise

At Rebeton, made-to-measure 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 into the architecture.

Optimised manufacturing, designed for the site

Made-to-measure does not mean added complexity—on the contrary, it ensures efficiency and reliability:

- Produce only what is needed → less waste, preserved resources.
- Panels machined and cut in the workshop, delivered ready for installation.
- Tailored logistics: custom packaging and calibrated deliveries.

✓ Performance is also measured in time saved and simplified construction.

Installation without constraints

Made-to-measure simplifies on-site work:

- Fewer cuts and handling
- Reduced risk of errors
- Faster, more consistent, and secure installation

✓ An organisation that helps meet deadlines and ensures a result fully aligned with expectations.

A flawless organisation

Rebeton is also a committed team throughout the project:

- Technical support and adaptation to installation constraints
- Production tracking tools for complete traceability
- Scheduling and delivery sequence management

✓ Thanks to this rigorous organisation, we ensure seamless continuity: no delivery errors, no interruptions in workflow, and total reliability until the project is completed.

Performance & compliance

Proven durability

ACRYTHERM® D is designed to withstand the most demanding conditions, ensuring a stable façade over the long term. Frost-resistant and nearly non-porous, it remains unaffected by weathering, UV, pollution, and mechanical impacts. The result: preserved aesthetics, maintenance limited to simple periodic washing, and a reference lifespan of 50 years, documented by the FDES and registered in the INIES database.

Fire safety at the highest level

Fire protection is a major requirement for contemporary buildings. The ACRYTHERM® D system achieves Euroclass A2-s1,d0, one of the strictest classifications for reaction to fire, allowing its use in all types of projects, including public-access buildings (ERP) and structures subject to strict regulations. In Switzerland, it also holds the RF1 rating, confirming no contribution to fire.

Mechanical strength and robustness

With the Q4 rating option — the highest level defined by the CSTB — ACRYTHERM® D ensures exceptional durability in exposed areas (bases, ground floors, façades accessible to the public).
Even without this option, the material already achieves Q1 classification, covering the majority of standard applications.

Certified environmental performance

ACRYTHERM® D follows a responsible approach: verified FDES (INIES database), long service life, and a recyclable aluminium subframe.

In the spirit of transparency, ACRYTHERM® formulations are made from raw materials for which **PFAS** are neither used nor intentionally added, according to our suppliers' declarations.

Certifications & labels

At REBETON, quality is priceless. Serving as true benchmarks of quality, performance, and reliability, our certifications and labels are a testament to our daily commitment to showcase our expertise and craftsmanship. Meeting your expectations and project specifications is essential to us.

Our ACRYTHERM® product and solutions are accredited to support you in pursuing sustainability certifications.



Environmental commitment

An Approach Embedded in Our Processes

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

Energy efficiency, carbon footprint reduction, and resource optimisation guide our decisions, from the material design to its on-site implementation.

ISO 14001-Certified Production

Our Bethonvilliers production site is ISO 14001 certified.

Beyond the label, this represents a genuine continuous improvement system: measuring, reducing, compensating when relevant, and above all, enhancing our practices every day.

The goal is simple and tangible: limit consumption, prevent impacts, and ensure consistent environmental quality over time.

Energy controlled at every stage

The ambient-temperature polymerisation of our panels lies at the heart of our environmental performance.

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

Resource optimisation

Water used on site is filtered and recycled at every stage of production, drastically reducing extraction and discharge.

We also prioritise the use of raw materials sourced locally, to minimise upstream transport and secure our supply chain.

Adjusted Production, Optimised Logistics

Because each panel is made-to-measure, we produce only what is needed.

Production offcuts are reintroduced into the process and recycled.

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

Durability as the primary low-carbon lever

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

With a reference lifespan of 50 years, ACRYTHERM® panels are designed to stand the test of time with minimal maintenance.

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

Sustainable Architecture
is more than just recycling:
it is first and foremost designing solutions that endure, without compromise.

How choosing ACRYTHERM® D. reduces your carbon footprint ?

Proven durability

→ **50 year** reference lifespan with no major replacements or maintenance required.
→ A long-lasting façade means less material consumed and lower cumulative emissions.

Responsible manufacturing

→ **On-Demand Production:** no overproduction, no unnecessary waste.
→ French Manufacturing, certified according to NF EN 15804.

Controlled Lightness

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

Optimised life cycle

→ Global carbon impact: **50 kg CO_2 éq/m² over 50 years**.
→ Recyclage aluminium subframe: –7,6 kg CO_2 éq/m² at end of life.

Low-maintenance design

→ No coatings, no paint—just simple water cleaning.
→ A façade that retains its brilliance without energy-intensive maintenance.

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

References

Résidence Les Arases, Geneva, Switzerland – Favre & Guth – Project Owner: 1875 Finance SA
Inselspital, Bern, Switzerland – Archipel Planergemeinschaft / Astoc Architects and Planners / GWJ Architektur AG / IAAG Architekten AG – Project Owner: Insel Gruppe AG
Quartet Mixed-Use Complex, Geneva, Switzerland – Favre+Guth – Project Owner: Swisscanton
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 / Gaëlle Lauriot Prevost – Project Owner: Société des Grands Projets
129 rue de l'Université, Paris – Mixed-use building – FRESH Architecture – Project Owner: Chelsfield
Rue de la Croix d'Or, Geneva, Switzerland – Mixed-use building – CCHE
Serrières Student Housing, Switzerland – cBmM SA – Project Owner: Tramontane Investissement SA
Meinen Areal Mixed-Use, Bern, Switzerland – GWJ Architektur AG / ASTOC Architects and Planners – Project Owner: Caisse de retraite des médecins et vétérinaires PAT BVG
Ecole d'Art de Belfort – Gérard Jacot – Project Owner: Ecole d'Art de Belfort
Résidence Alameda Franca, Jardim Paulista, São Paulo, Brazil – Candusso Arquitetos
Rue David d'Angers Student Housing, Paris – TOA Architectes Associés – Project Owner: AFTAM Habitat
Silvergreen Office Building, Rue de Villiers, Neuilly-sur-Seine – DTACC Architectes – Project Owner: Macif / Société Foncière de Lutèce
Collège Marguerite Duras, Colombes – Gaëtan Le Penhuel Architectes et Associés – Project Owner: Conseil Général des Hauts-de-Seine
Extension Collège Lucie Faure & Nursery, Rue des Pyrénées, Paris – METRA + Associés – Project Owner: Ville de Paris
Centre Hospitalier William Morey, Châlon-sur-Saône – Brunet Saunier Architecture – Project Owner: Centre Hospitalier William Morey
Luciana Mixed-Use Building, Monaco – Alexandre Giraldi Architecte – Project Owner: Renato Mazzolini
Orly Airport Station, Line 14 – Groupe ADP – Project Owner: Société des Grands Projets
Intown Office Building, Paris – Bechu & Associés – Project Owner: Scor Auber
Green One, Rue Pajol, Paris – Agence Lin – Project Owner: Altarea Cogedim Entreprise
BGL BNP Paribas Banking Center, Luxembourg – M3 Architectes – Project Owner: BGL BNP Paribas
Limoges Stadium – Atelier Ferret Architecture – Project Owner: Ville de Limoges

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