CORIAN®
DESIGN

Make Your Space™

Corian® Exterior Cladding

Corian® exterior cladding material is innovation through beauty, color and depth. It is strength and purity, reliability and performance. But above all, it is inspiration – a maverick, seamless material that can transform any space, whether for interiors or exteriors, through unlimited possibilities.

Corian® exterior cladding material brings personality to virtually any type of environment, enhancing and facilitating the lives of those who use and enjoy its unique potential. Crafted into almost anything, in any place, for any purpose and in a wide palette of colors, it offers the freedom to design, explore and create. Long-lasting, durable and elegant, Corian® exterior cladding material has a three-dimensional formability liberating inventive and artistic minds for 50 years. It is an advanced blend of natural minerals and acrylic polymer. It is a synthetic material – born of human imagination and exploration – and the result of a reflection upon the demands of design.

Corian® exterior cladding material is a solid, non porous, homogeneous surfacing material, composed of about 1/3 acrylic resin (also known as polymethylmethacrylate or PMMA), and about 2/3 mineral, aluminum trihydrate (ATH). Supplied in sheets, it can be fabricated with conventional woodworking tools into virtually any design.

Advantages of Corian® Exterior Cladding Material for Building Facades

High performance durability

- Great resistance to impact
- Resistant to humidity, salt fog and sulfur dioxide (SO2)
- Resistant to fungi and bacteria
- Will not delaminate nor decompose

Structural Performance

- Lightweight for reduced structural load
- Flexural and tensile strength provide excellent resistance to wind loads
- Compatibility with typical building components, structural silicone and sealants

Renewability

If excessive surface damage is incurred after installation, Corian® exterior cladding material has unique repair possibilities. In most cases it can be repaired on site with little difficulty, using abrasive scouring pads and an orbital sander.

Advantages of Corian® Exterior Cladding Material for Building Facades

Fire Performance

- Low flame spread
- In the event of fire, Corian® exterior cladding material will not melt and will not create burning droplets
- Low smoke generation
- When burned, it primarily releases carbon oxides and does not contain toxic halogenated gases

Environment – Durability

- Ventilated facade allows for thicker insulation and therefore may lower energy costs
- Is durable, long-lasting. Panels can be repaired, if necessary, rather than replaced (less material is needed or discarded over the life of the building)
- Ventilated façade can be used for cladding renovation to reach new insulation requirements
- Is inert, safe in use and has low VOC content
- Is nontoxic

Advantages of Corian® Exterior Cladding Material for Building Facades

Weatherability

- UV stable colors with excellent colorfastness available
- Resistant to bulk water absorption
- Weather-resistant system minimizes leakage from wind-driven rain (ability to seam reduces the number of joints)
- Excellent freeze-thaw resistance
- Excellent resistance to chemicals, detergents and environmental pollutants

Maintenance

- There are no pores to trap dirt
- Neither the surface nor the edges need to be sealed, painted or protected
- Colors run through the entire thickness and cannot wear away or delaminate, making the product inherently robust
- Even covered with some of the most difficult dirt and graffiti, the panels can be restored to their original appearance through cleaning and sanding
- Under normal conditions, will require annual cleaning only, with standard agents such as water and detergents

Design Flexibility with Corian® Exterior Cladding Material

Large panels

Large panels can be easily built up by adhering standard panels with inconspicuous, reinforced seams. The main limitations are the ability of the substructure to accommodate movement due to thermal expansion, the weight capacity of the mounting system, and the necessary expansion gaps (revealed or open joint designs). The maximum dimensions are typically governed by the capability of the design to accommodate the anticipated thermal movement. Colors run through the entire thickness, so edges are the same color as the rest of the sheet, and revealed joints will show no black gaps.

Translucency

Corian® exterior cladding material will allow some diffused light transmission, depending on color. In general, solid light colors such as white and beige are the most translucent, and dark colors are the least translucent.

Corian® exterior cladding material can also be fabricated to achieve different levels of light transmission by selectively back-cutting the material to different thickness. As the material is cut thinner, it allows more light to pass through. The effect generated will depend on the combination of material and lighting system variables.

Design Flexibility with Corian® Exterior Cladding Material

Surface Texturing, Patterning and Engraving

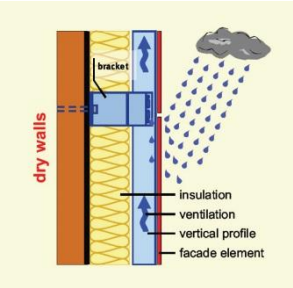
There are many different surface treatments that can be applied to Corian® exterior cladding material, including machining or engraving (sanding, routing, sandblasting, water jet, etc.), texturing (thermal molds and presses), and layering (laminating). Different techniques can be used for surface finishing, partial surface cutting or full cutting for different shapes, patterns or inlays. Different finishes (semi-gloss, mat or rough-textured) can be achieved with various sanding or polishing steps. These techniques enable high levels of customization for unique, one-of-a-kind designs.

Thermoforming

A broad range of geometric or natural patterns of differing textural depth and dimension can be molded into the surface to achieve an unlimited variety of architectural finishes. Surface molding and forming of Corian® exterior cladding material, is typically done with medium-temperature ovens and pressure molds.
Surface texturing, patterning, engraving, and molding techniques can be combined with shape thermoforming, to create a variety of two and three dimensional structures.

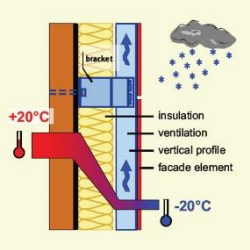
Advantages of Ventilated Facade

No matter what climate you find yourself in, moisture is always an issue and can seriously affect the overall performance of a building. The answer is ventilated façade , which is designed to breathe. Ventilated facades have a space between the cladding and the outer wall – an ideal location for insulation materials. Corian® for external cladding is highly suited to ventilated facades. The 'breathing' or envelope systems, combined with DuPont™ Tyvek® advanced breather membranes offer possibilities for high insulation values and contribute to a healthy indoor climate.



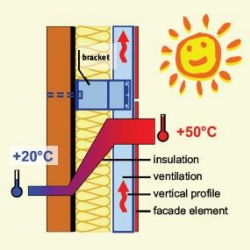
Rain/Humidity/Dew protection

Rain water and condensation are removed naturally by air flowing through the cavity – so that the insulation material remains in good condition and effective over time. Penetration of rainwater is minimized and condensation is drained out through ventilation inlets and outlets. The ventilated air space serves multiple function.



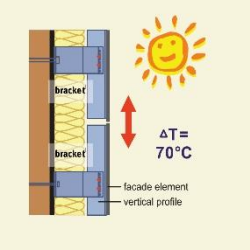
Thermal insulation - Cold

The air in the designed cavity will circulate due to air pressure differentials and thermal differentials over the height of the building. In a cold climate this causes the condensation moisture at the rear of the cladding to dry.



Thermal insulation - Heat

In a warm climate the moving air will cool the inner layers of the construction, thus reducing the demand for cooling energy. The building occupants will benefit from a low-maintenance environment with dry and comfortable conditions that can make a positive contribution to wellness and overall comfort.

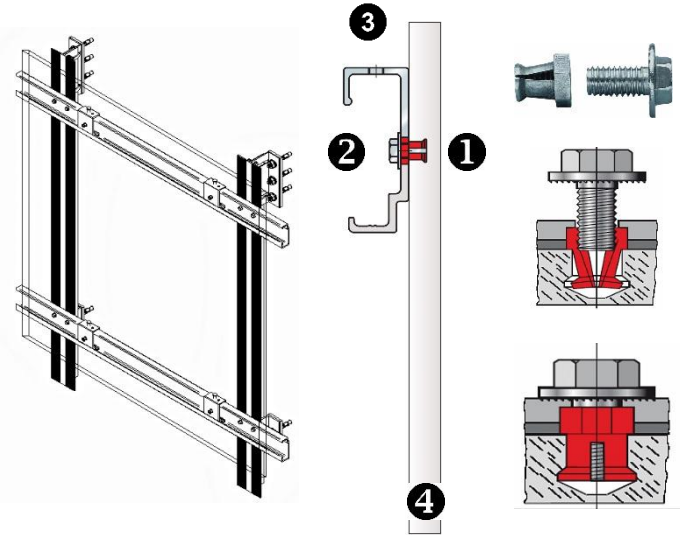


Fire Resistance

Corian® exterior cladding material has proven excellent fire properties and passed successfully the demanding EN 13501-1 norm (including SBI test) for panel dimensions usually used in façade applications.

PROPERTIES	TEST METHOD	RESULTS	PANEL TYPE	PANEL WIDTH
Reaction to fire	EN 13501-1 EN 13823 (SBI test) EN ISO 11925-2	Euroclass B-s1, do	Custom Grade	from 1300mm up to 1500mm
		Euroclass B-s1, do	Flame Retardant grade for solid & sierra colors	760mm

Fixing Systems Specifications

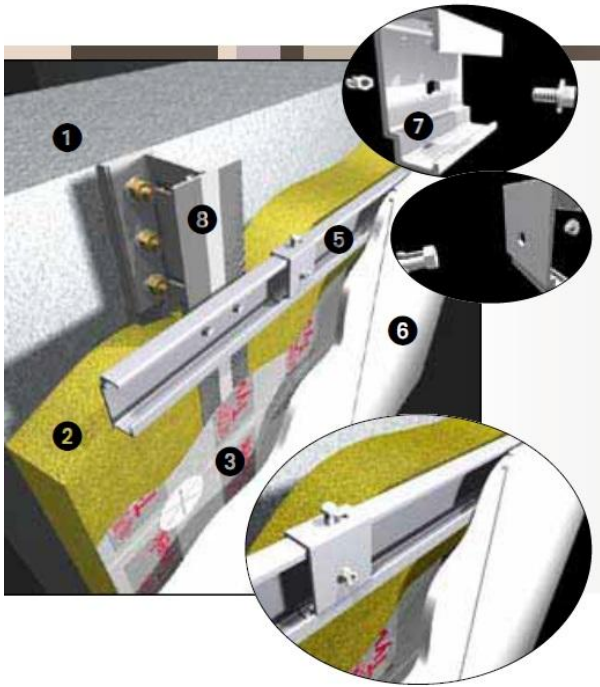


1. KEIL Undercut Anchor
2. KEIL Locking Screw
3. Clamp
4. Corian® Panel

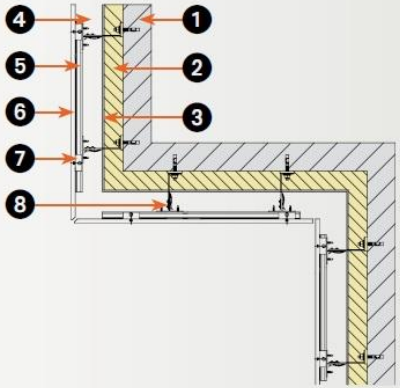
Invisible fixing systems hide the connecting hardware on the back of the Corian® exterior cladding material panels. These systems hold the panels securely, supporting the weight of the panel and providing stiffness to minimize wind deflection.

The KEIL system is an example of a mechanical attachment in which an insert is expanded within an undercut hole. When a bolt is installed in the conical mechanical insert it will expand, locking itself into the undercut of the hole. To properly install the fastener, it is very important all details are precisely calculated for the project, taking into account the length of the insert, the length of the bolt, the thickness of the clasp or attached hardware and the depth of the undercut hole. The clasp or attached hardware are designed to move relative to the underlying substructure to accommodate thermal expansion and contraction. Estimates of thermal movement should consider seasonal temperature changes.

Fixing Systems Specifications

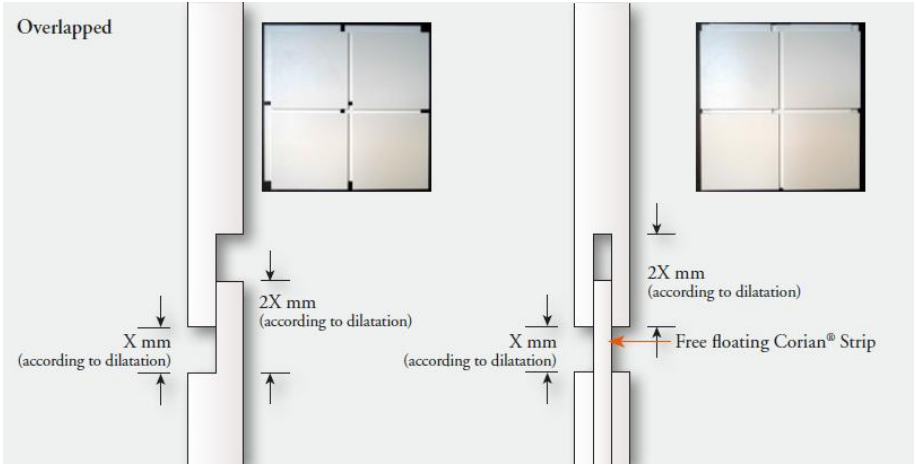


Aluminium adjustable subframe available from various suppliers



1. Concrete Wall
2. Insulation
3. Tyvek® Rain Shield
4. Ventilation Gap
5. Horizontal Profile
6. Corian® Panel
7. Adjustable Clamp
8. Vertical Profile

Expansion Joints and Panel Connections

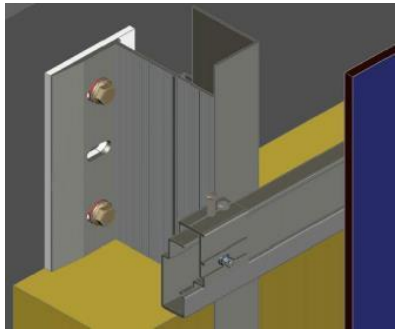


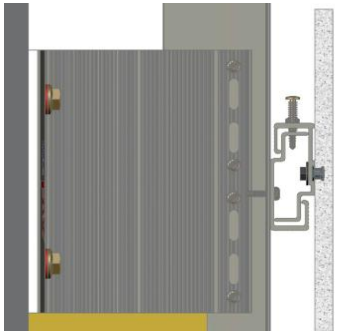
Panels should be attached to the substructure so they are fully supported, yet able to move relative to the substructure to accommodate thermal expansion and contraction. Corian® exterior cladding material, as any other material, will expand or contract with temperature changes. The thermal expansion coefficient of Corian® material is 3.9 x 10^{-5} m/m°C. The fixings method and expansion gaps (X) should be designed to allow the material to move freely.

~~As a rule of thumb, a variation in length & width of 3mm/m should be considered in the design of panel, based on temperature differential of 80 °C between installation temperature and the highest-lowest temperature.~~

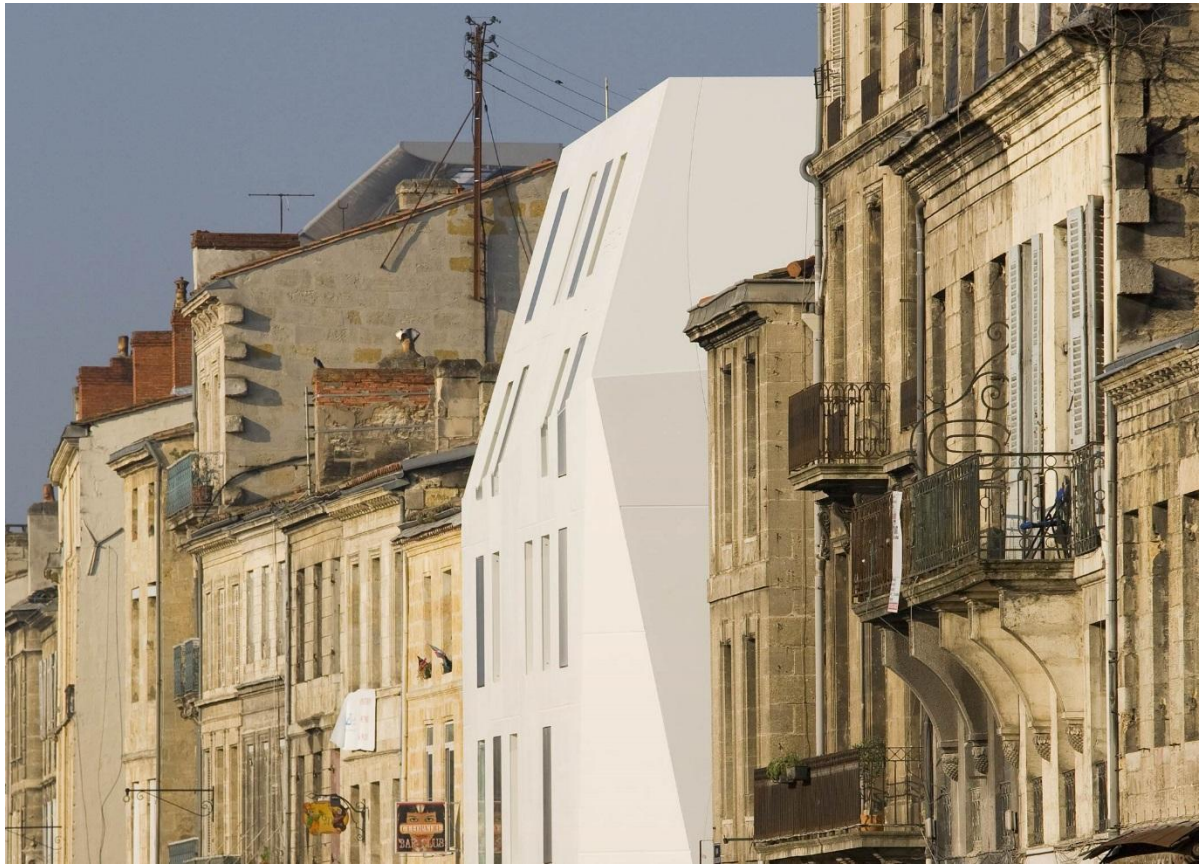
Aluminum Substructure

- Brackets
- Vertical profiles
- Horizontal rails
- Clasps





Corian® exterior cladding material, a cladding solution for sustainable buildings…



Klif Shopping Centre, Poland

Press Control & Click on the image or at the below link to view the video

3D mapping projection: Diamond makeover

https://youtu.be/QIfQiyOIegk

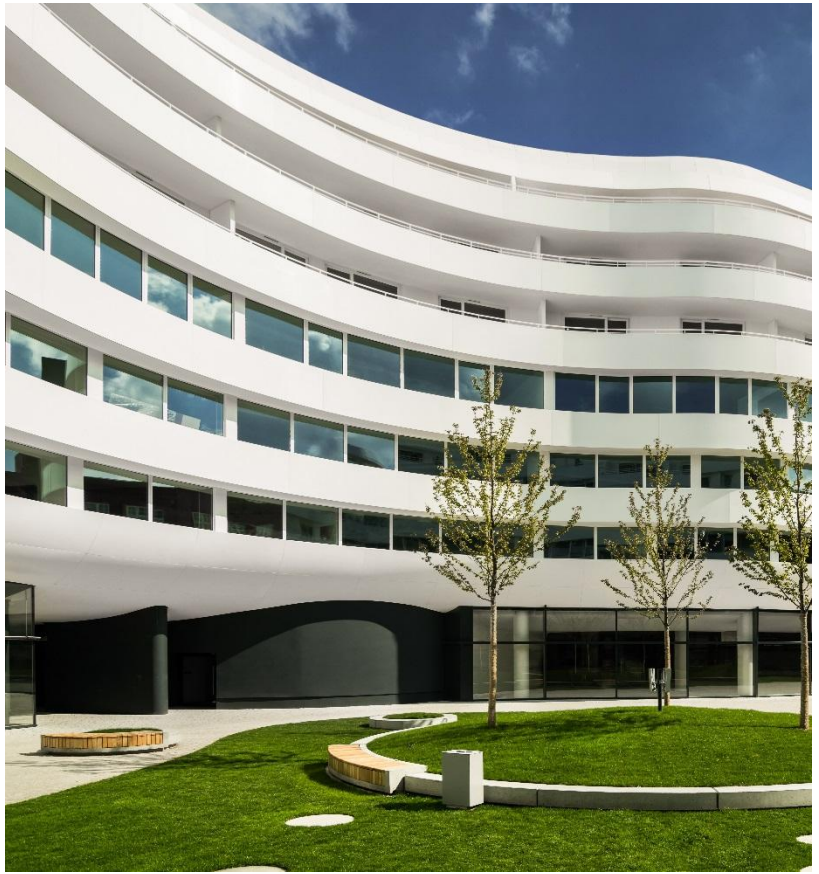
Mosaic Banquet Hall, New Delhi

Mosaic Banquet Hall in New Delhi wears a stylish and durable façade made from DuPont™ Corian® incorporating an effective lighting design; Corian Fabrication & Photo courtesy: Oystra Concepts Pvt. Lt

Mosaic Banquet Hall in New Delhi wears a stylish and durable façade made from DuPont™ Corian®, incorporating an effective lighting design; Corian Fabrication & Photo courtesy: Oystra Concepts Pvt. Ltd.

NEW DELHI ARCHITECTURAL PRACTICE STUDIO LOTUS WAS LOOKING TO MAKE A SPLASH WHEN THEY DREW UP PLANS FOR THE FACADE OF A NEW BANQUET HALL LOCATED AMIDST TRADITIONAL ARCHITECTURE IN THE INDIAN CAPITAL. The team selected Corian® to create a modern yet relaxed style that plays with light and features a clever backlit effect. The design relies on an irregular pattern of circles combined with a mix of opaque, transparent and translucent depths as well as animated LED lighting.

OVO Wroclaw complex, Poland



DuPont™ Corian® has been used as exterior cladding for the futuristic OVO Wroclaw centre (Wroclaw, Poland) and is found also in a variety of interiors at the high-end DoubleTree by Hilton Hotel located inside the centre. Design by Gottesman-Szmelcman Architecture, www@gsarch.org . Photo by Kamil Czaja.

The ultra-modern OVO Wroclaw complex comprises 50,000 square metres in Wroclaw, Poland's fifth largest city. Designed by Gottesman-Szmelcman Architecture, with JSK Architekci as executive architects, this statement-making project is located near the historical market square and features an inspiring rounded façade made with DuPont™ Corian® high-tech surface in white colour. An astonishing 6,000 square metres of sophisticated Corian® wraps around corporate offices, 180 luxury residences and a five-star DoubleTree by Hilton hotel with 189 rooms and suites and offers a majestic view for visitors to its sprawling inner courtyard…..
Read more at http://www.corian.uk/ovo-wroclaw-centre-a-milestone-in-urban-architecture-by-gottesman-szmelcman

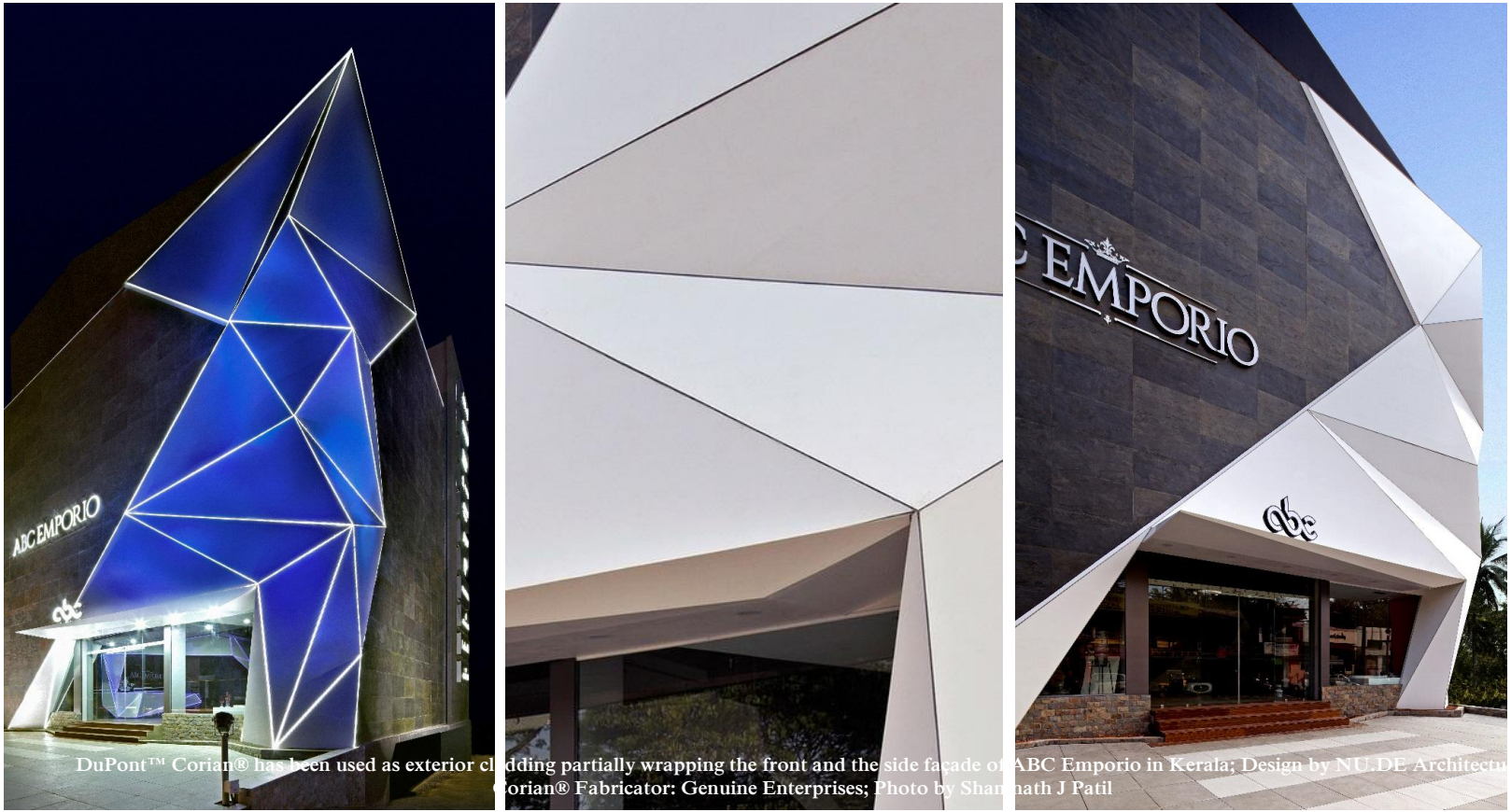
AVR Swarna Mahal Jewelry Showroom, Salem (TN)

The AVR Swarna Mahal Jewelry Showroom in Tamil Nadu wears a stylish and durable façade made from DuPont™ Corian®, incorporating an effective lighting design; Design & Photo rights reserved by the owner.

Municipal Building, France

Created by exploiting the versatility of DuPont™ Corian®, fascinating effects of light and shadow are made by the solar shading syste for this imaginative municipal buildin in France. Community of Municipalities of Lacq, Mourenx, France; project by Gilles Bouchez; photos Arthur Pequin, all rights reserved

ABC Emporio Showroom, Kerala



DuPont™ Corian® has been used as exterior cladding partially wrapping the front and the side façade of ABC Emporio in Kerala; Design by NU.DE Architectu
Corian® Fabricator: Genuine Enterprises; Photo by Shanmath J Patil

ABC Emporio Showroom, Kerala

DuPont™ Corian® has been used as exterior cladding partially wrapping the front and the side façade of ABC Emporio in Kerala; Design by NU.DE Architecture; Corian® Fabricator: Genuine Enterprises; Photo by Shamnath J Patil

Mumbai-based architecture practice NU.DE envisioned a sculptural geometric addition, partially wrapping the front and side facades of the building. DuPont™ Corian® solid surface material was considered as part of the design material right from the initial stages and was used for designing the exterior building, reception countertop and visitor's area.

Read more at: http://www.dupont.co.in/corporate-functions/our-approach/global-challenges/shunya/articles/Corian-solid-surface-showrooms-ABC.html

Private residence, New Delhi

Private residence in New-Delhi opts for DuPont™ Corian® in various applications; all rights reserved by Designer & Fabricator

Diyaash Jewelry Showroom, Hyderabad

The Diyaash Jewelry Showroom in Hyderabad wears a stylish and durable façade made from DuPont™ Corian®, incorporating an effective lighting design; Design & Photo rights reserved by the owner.

4 soleils building, France

Val-de-Reuil (Eure) : DuPont™ Corian® used for the rehabilitation of the « 4 soleils » building, a project of the architects Bernard Malecamp and Nicolas Mevel; photo Jean-Marc David for Nicolas Mevel Architecture, all rights reserved.

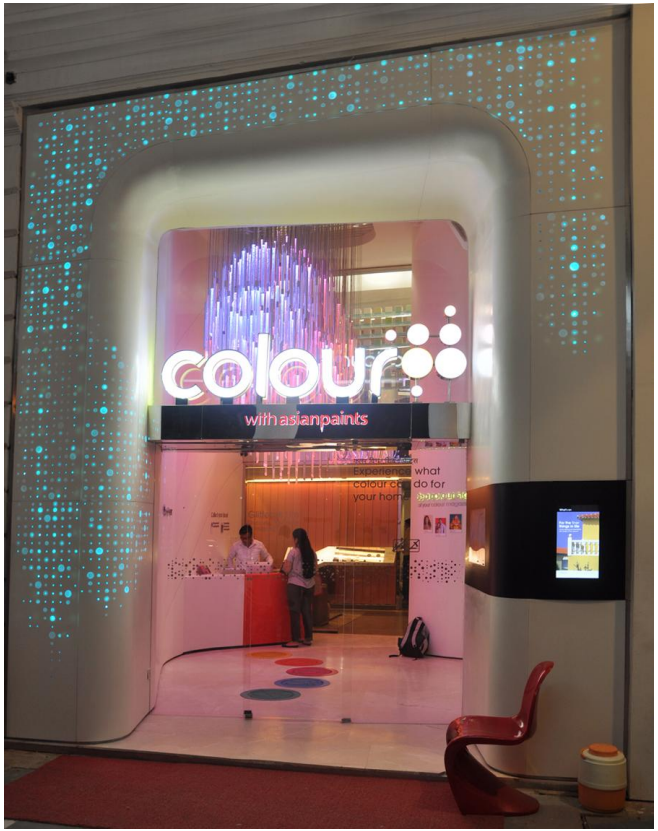
Private residence, New Delhi

Private residence in New-Delhi opts for a Jali made from color Aztec Gold from the Private collection series of DuPont™ Corian® incorporating an effective ventilated facade; all rights reserved by Designer & Fabricator

The Schutz flagship store, Brazil

The Schutz flagship store in Sao Paulo, Brazil wears a stylish and durabl façade made from DuPont™ Corian®, incorporating an effective lighting design; project by Bel Lobo & Bob Neri (Bebo); photo Nicola Labate - F perfocal, all rights reserved.

Asian Paints Colour Store Experiential Design Lab, New Delhi



https://youtu.be/TlSiHV9I6OU

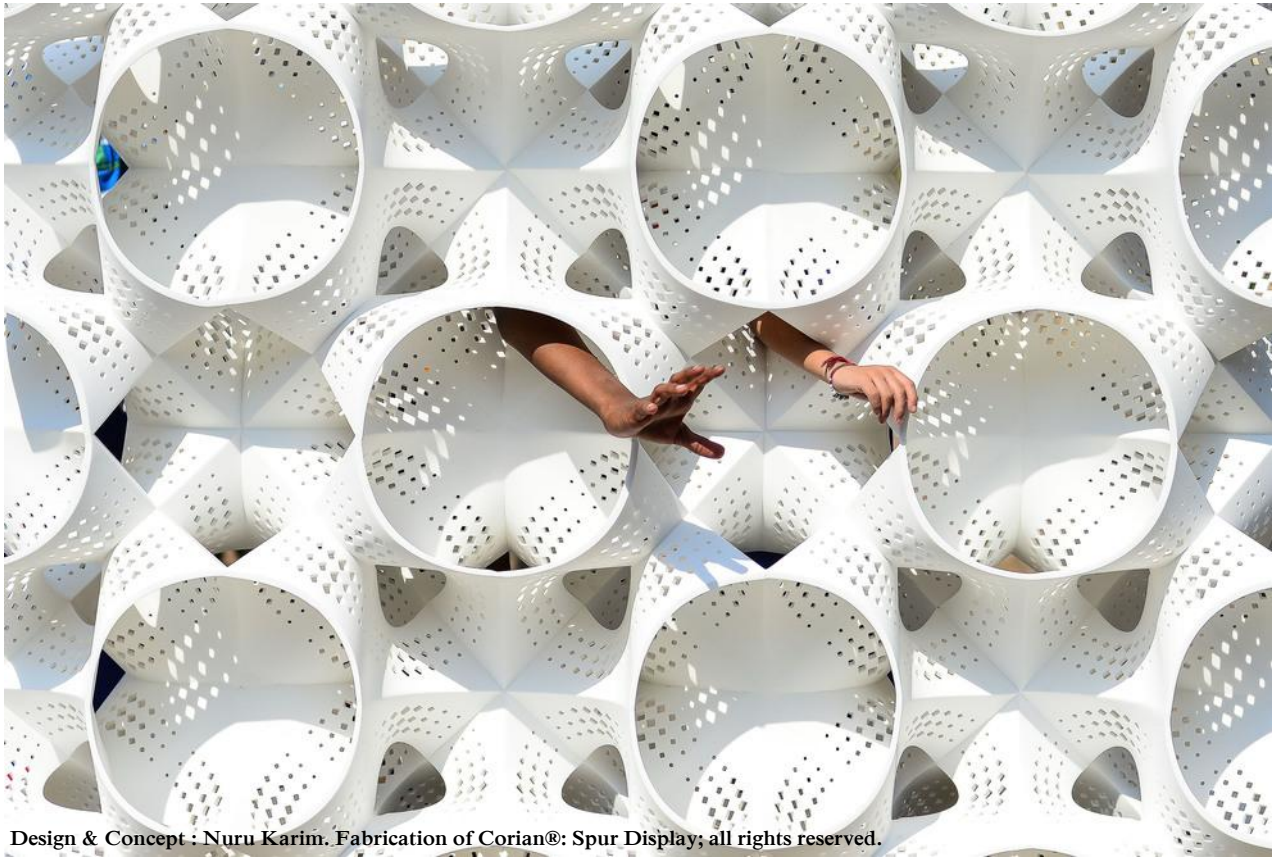
Microsoft Headquarters, Germany

Th Microsoft Germany headquarters n F kstadt Schwabing in the north of Munich. The building's ex ior is enveloped in Corian® design surface and features an unusual depth when illuminated by the n. Design: GSP Architekten Munich, Facade: HAGA Metal au GmbH. Fabrication of Corian®: Hasenkopf GmbH. Photos: Andreas Frisch, GSP Architekten

The Microsoft Germany headquarters in Parkstadt Schwabing in the north of Munich. The building's exterior is enveloped in Corian® design surface and features an unusual depth when illuminated by the sun. Design: GSP Architekten Munich, Facade: HAGA Metallbau GmbH. Fabrication of Corian®: Hasenkopf GmbH. Photos: Andreas Frisch, GSP Architekten, all rights reserved.

Microsoft. The name says it all. For the company's new German headquarters in the north of Munich, enormous panels in Corian® design surface resemble gigantic windows opening onto the surrounding landscape. Opened in October 2016, the modern office building is the ideal venue for hosting contemporary work solutions. Its layout adheres to all the relevant criteria Microsoft expects in an open and flexible workspace.
Read more at: http://www.corian.uk/the-new-microsoft-germany-hq-facade-features-fascinating-depth-thanks-to-corian

Mathematical Surfaces, Mumbai



Design & Concept : Nuru Karim. Fabrication of Corian®: Spur Display; all rights reserved.

The Art Every initiative looks to reach a wider audience by exhibiting artwork outside the museum. In Mumbai, Nuru Karim, founder of the NU.DE architecture practice, took on a project to allow the city's underprivileged residents a chance to get up close to art, designing a large screen-like sculpture out of Corian® with perforations that represents complex mathematical geometry.

Stack residential Complex in Breda, The Netherlands

The impressive new Stack residential complex in Breda, the Netherlands is distinguished not only by daring design but by also pristine exterior cladding made entirely in high performance DuPont™ Corian®. Project by Marius van den Wildenberg; Photo courtesy of Marius van den Wildenberg: all rights reserved.

Jabba The Hut

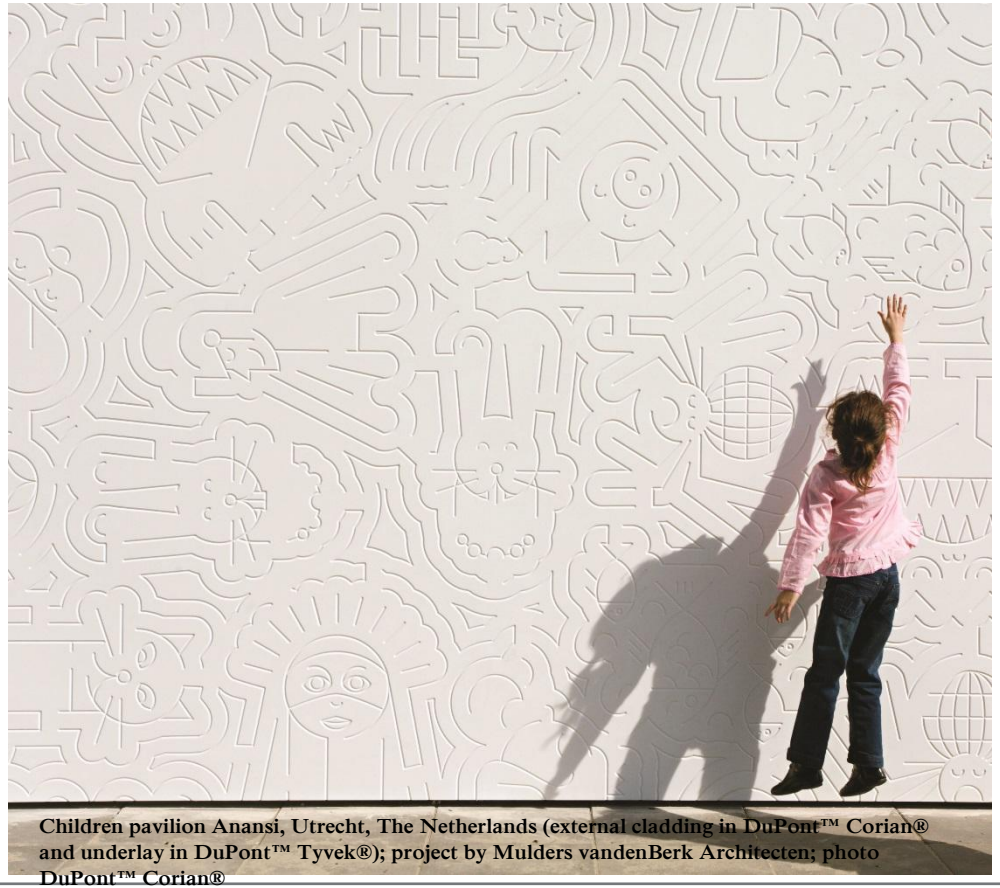
Photo courtesy of Lincolnshire County Council

CONCEIVED BY I-AM ASSOCIATES FOR A COMPETITION TO REINVENT THE HUMBLE BEACH HUT (NOW CELEBRATED BY THE ANNUAL "BATHING BEAUTIES FESTIVAL"), THE ORIGINAL DESIGN IN TIMBER AND ALUMINIUM DID NOT FARE WELL IN THE HARSH COASTAL CLIMATE OF LINCOLNSHIRE.

Through the use of Corian®, the project's aesthetics have been preserved while ensuring the structure's longevity. Crafted from a sensuous scoop of smoothly curving Corian®, the hut – known as "Jabba" – was done primarily in the warm Cameo White tone. It also features "rock candy" stripes – created via inlaying techniques – in Bougainvillea, Blooming Green and Graphic Blue colors.

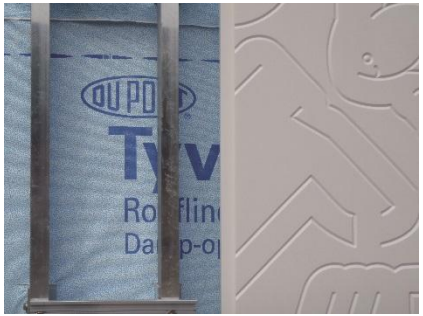
Exterior Signages, India

A façade becomes a blank canvas for creative expression



Children pavilion Anansi, Utrecht, The Netherlands (external cladding in DuPont™ Corian® and underlay in DuPont™ Tyvek®); project by Mulders vandenBerk Architecten; photo DuPont™ Corian®

The external envelope of a building serves several key functions, from protection to attraction. When creating a functional 'rain-screen' façade, DuPont™ Corian® also allows for the application of a distinctive architectural identity.



An Iceberg takes shape

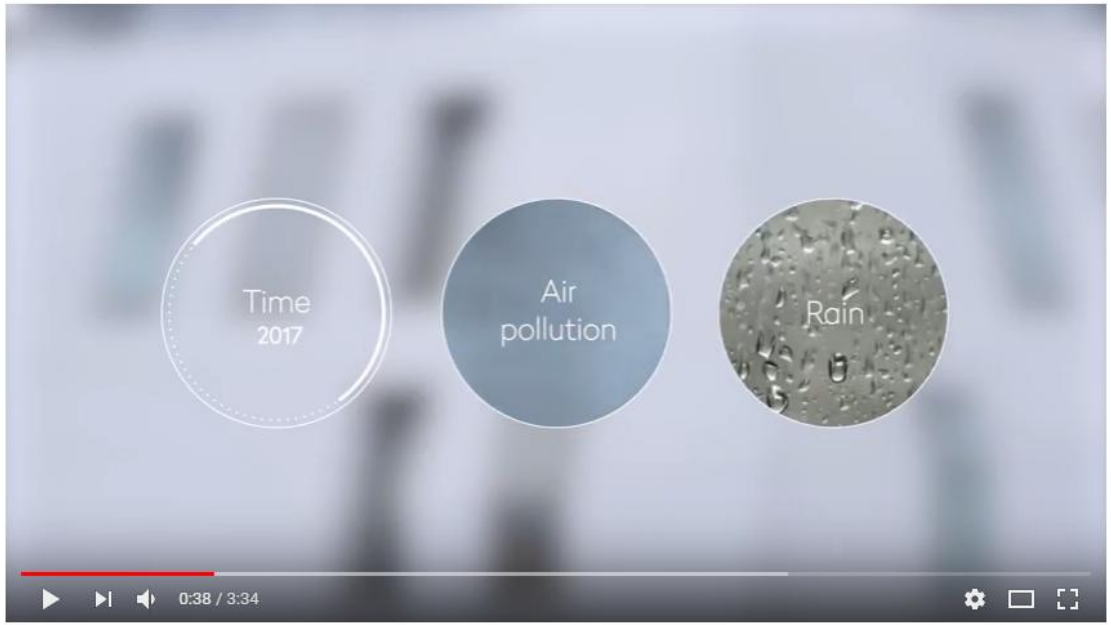
The Seekoo Hotel in Bordeaux by Atelier King Kong Architects marked a worldwide debut - the first structure to have an entire 'skin' made from DuPont ™ Corian ®. Designed to resemble a floating glacier, its striking planes and angles are enhanced by the cool, sleek purity of the cladding. Right: Seekoo Hotel, Bordeaux, France; project by Atelier King Kong Architects; photo Arthur Pequin

2007

to

2017

Easy way to bring back the original exterior



An Everlasting White Facade with Corian® Exterior Cladding

See how the Seeko'o Hotel easily cleaned the Corian® Glacier White facade back to its original pristine exterior.

https://youtu.be/4z-2cdWTNuo

Press Control & Click on the image or at the below link to view the video

Few more Corian® Exterior Cladding projects from India

Sterling Resort (2011)
Banquet Hall Façade
Punjab

Private Duplex (2015)
3 D cut Balconies
New Delhi

Private Residence (2010)
Backlit exterior wall
Pune

Private Residence (2011)
Façade
Ludhiana

Private Residence (2015)
Jali Panels
New Delhi

Private Residence (2016)
Name Plate / Signage
New Delhi

Private Residence (2014)
Façade
Dehradoon

Private Residence (2013)
Window Jali Panels
New Delhi

Roof Top Restaurant (2017)
Facade
Ludhiana

Shopping Complex (2011)
Façade
New Delhi

Private Residence (2016)
Exterior Backlit Panels
New Delhi

Private Residence (2017)
Façade
Kolkata

And many more…..

Few more Corian® Exterior Cladding projects from India

Private Residence (2017)
Backlit patterns on gates
New Delhi

Private Residence (2017)
Façade
Ludhiana

And many more…..

To know more about Corian®, please contact:

Corian®

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