

LOTTE ADVANCED MATERIALS

STARON® AN ORIGINAL SOLID SURFACE MATERIAL

DURABILITY, COLOUR VARIETY, **DESIGN WITHOUT LIMITS**

STARON®

STARON® Solid Surfaces is an acrylic-based material made of natural minerals. Just as decorative as natural stone, but with all the advantages of a solid surface material. As it is solid and non-porous, it can be processed three-dimensionally, offering planners and designers maximal freedom. Although STARON® incorporates all important qualities of stone, it can be worked by carpenters in a similar way as hardwood. Unlike stone however, STARON® feels warm and pleasant to the touch.

With its many advantages and versatile application possibilities, STARON® is a convincing contribution to the private, commercial and medical sectors alike.

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ROBUST AND DURABLE

• Easy maintenance and repairable

Flame and shock resistant



HYGIENIC

- Non-porous and homogeneous
- Bacteria-resistant and easy to clean

 Resistant to harsh chemicals



FLEXIBILITY AND VARIETY

- Thermoformable and 3D-effects
- Organic and geometric design
- Perfectly suitable for use by carpenters



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LIMITLESS COLOUR VARIETY

- 150 colours
- Reflection and depth-effect
- Supreme Collection offering stone, marble and concrete looks



- and invisibly
- Cast-like design



FREE FROM JOINTS Glues together seamlessly

Soft and flawless to the touch



TRANSLUCENT

- Full-surface backlighting
- Variable luminosity
- Individual backlighting for logos and texts

PUBLIC BUILDINGS

01

National History Museum London, UK, Design and contractor: Paragon Creative, Photo: NHM London



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02

Berlin Olympic Stadion visitor centre, Design and photo: Akay von Oppen, Berlin



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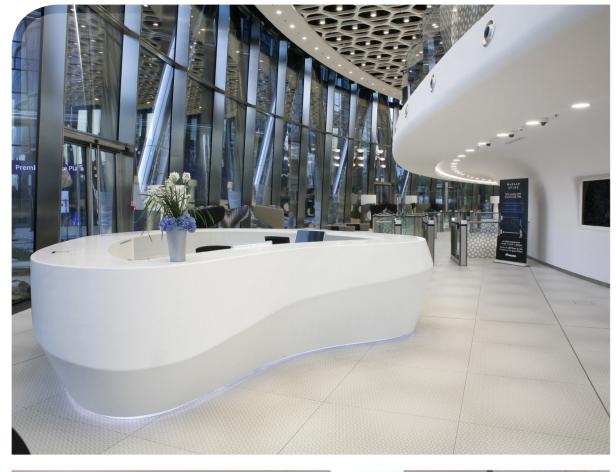
03

Indoor pool Blaubeuren, Gebhardt Architectural Offices, Contractor: Mohring, Photo: Webvisio Mediadesign



Warsaw Spire, Warsaw, PL, Design: Massive Design, Contractor: Krause, Photo: Tadeusz Parcej





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Student Residence Milestone, Vienna, AT, Josef Weichenberger Architects, Photo: Studio M. Eder









07 Edge Media Furniture, Design and photo: Peter Kenkel designed for

people, Holdorf



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06

New Vienna University for Economics and Business Administration, AT, Zaha Hadid Architects, Contractor: Joinery Scheschy, Photo: Studio M. Eder

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Heathrow Airport Terminal 5, London, UK, Photo: Heathrow Airport





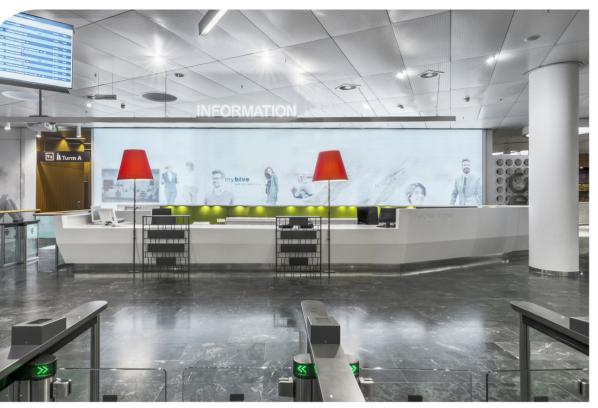




Vienna Twin Towers, AT, Katharina Fröch & Hoppe Architects



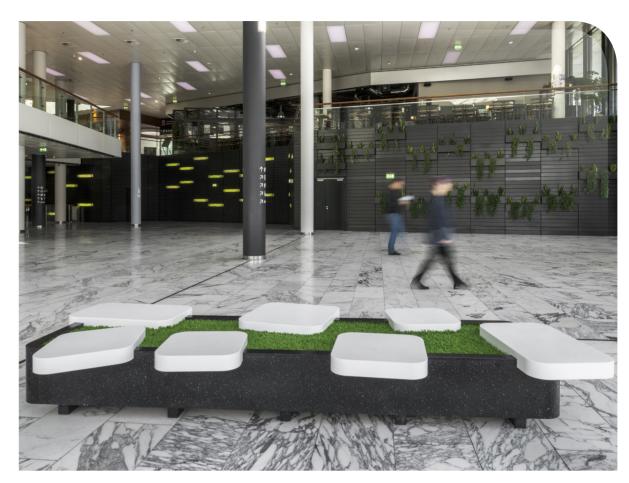
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SHOPFITTING

01

Optician, Contractor: Otto Ebersberger GmbH



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02

Luxury Shop Lounge, Seoul, KOR







Heidi.com Fashion, Neuchâtel, CH, Design: Zaha Hadid Architects, Photo: Mathieu Spohn



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04

Health care supply store Glotz in Stuttgart, Design and contractor: Parkraum & Dillmann, Photo: B. Matthiessen



Sportalm Shop, Düsseldorf

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Dessange Beauty Shop, Moskau, RUS, Design & Photo: Stanylsav Starykh





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07

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Kludi Forum, Menden, Design: db architekci, Contractor: Krause, PL, Photo: Oliver Pohl





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Stuart Weitzman Shoe Shop, Athen, GR



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HEALTHCARE SECTOR



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JOINT-FREE DESIGN



EASY MAINTENANCE



NON-POROUS MATERIAL

EASY TO ிரி

CLEAN



DURABLE AND EASY-CARE



NSF

HOMOGENEOUS

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CHEMICALS AND STAIN RESISTANT



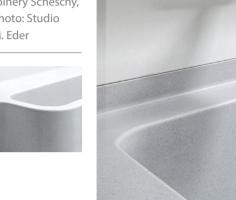
EXCELLENT QUALITY

FLEXIBILITY THROUGH FORM VARIETY



ENVIRONMEN-TALLY FRIENDLY CERTIFICATION

Barmherzige Schwestern Hospital, Linz, AT, Contractor: Joinery Scheschy, Photo: Studio M. Eder





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Dentistry Am Staden 9, Saarbrücken, Design: Braun & Eyer & Okinlab, Photo: Studio Yaph Hakimi







04

medi – Centre for Medical Education, Bern, CH



05

Children's hospital Kepler University Clinic, Linz, AT, Contractor: Joinery Scheschy, Photo: Studio M. Eder

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HOSPITALITY & RESTAURANTS

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01

Marriott Renaissance Hotel Barcelona Fira, ESP, Ateliers Jean Nouvel, Ribas & Ribas, Photo: A. A. Fuentes





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02

Sheraton Grande Walker Hill Hotel, Seoul, KOR



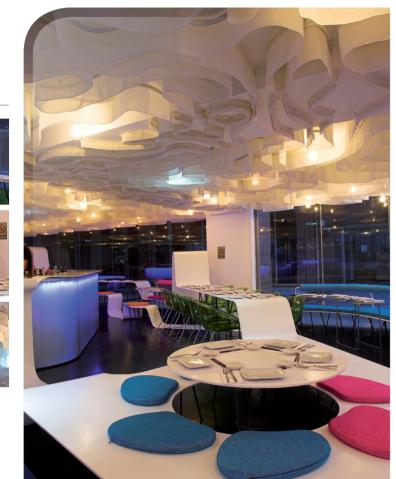
03

Double Tree Hilton Hotel, Bucharest, ROU, Design and photo: Inpro Studio ۲



Sushi La Bar & Grill Restaurant, Nicosia, CYP







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Gallery Café, Queensland, AUS, Design by the Nosuchstudio collective, Photo: Austaron











07 Adagio Club Berlin, Design: stories within architecture, Photo: Adagio

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06

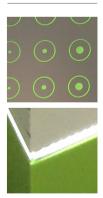
Perfect Day[®] Coffeeshop, Frankfurt Airport, Terminal 1, Design and photo: 3deluxe Architects



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Wasabi Restaurant, London, UK



RESIDENTIAL

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Private home, Stuttgart, Design and photo: Julia Meisel, Architect; Contractor: Mohring



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Private kitchen, Seoul, KOR





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Private kitchen, Bayreuth, Design and contractor: Bezold Interior Construction, Photo: M. Bursch









04

Private kitchen, Aarau, CH, Design and photo: Lämmli Architecture, CH

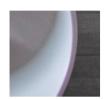


05

'Kus' crystal private kitchen, Niedersachsen, Design and photo: Mezzanin Architects, Vienna, AT ۲



'Unique' sofa & 'Eight' table, Neu-châtel, CH, Design and photo: Identity Design, CH





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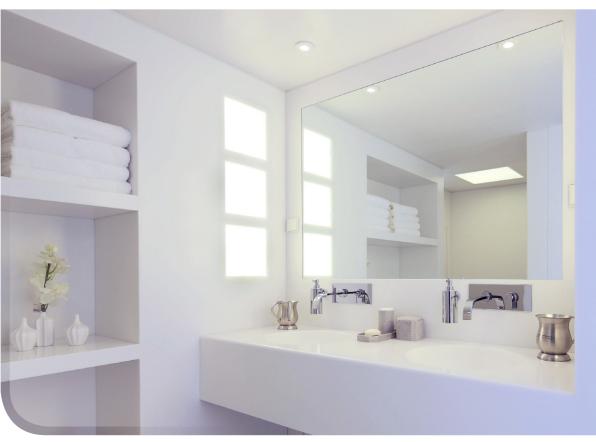
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Mikvah in Moscow, RUS, Design and photo: Alyona Franchan & Boris Matveyev, Faber Group









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Double washbasin, Bayreuth, Design: Becher & Partner, Contractor: Bezold Interior Construction, Photo: M. Bursch





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'Motive' Washbasin, Victoria, AUS, Design and photo: Thomas Coward for Omvivo Kitchen



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10 Private kitchen, Seoul, KOR



11 Private bathroom, Seoul, KOR

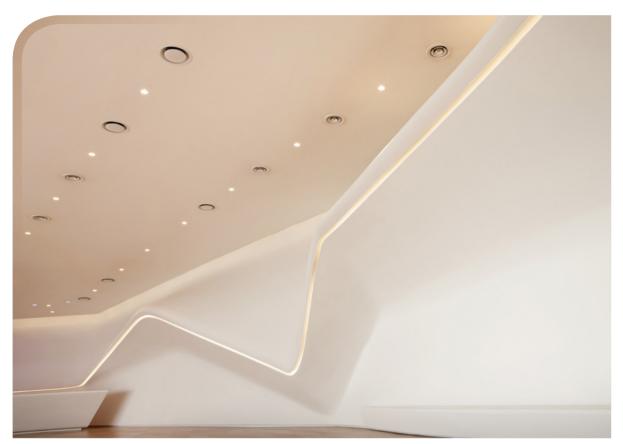


WALL DECORATION

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Sky Lounge, Dongdaemun Design Plaza & Park, KOR, Design: Zaha Hadid Architects





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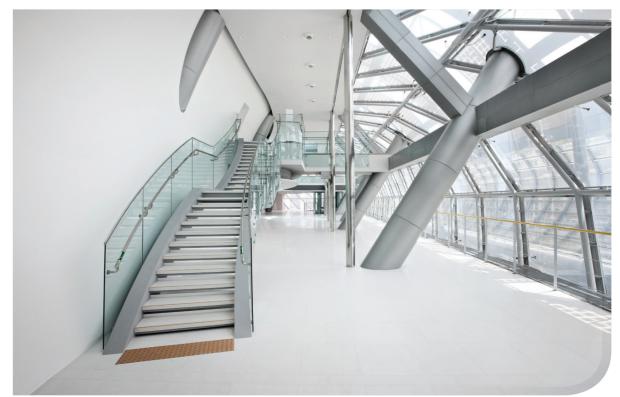
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Residenza Villa, Lugano, CH, Giussani & Berther Architects, Photo: Claudio Bader









03

Hublot Shop, Paris, FRA, Design and photo: Dietlin Artisans Métalliers, CH



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04 Seoul City Hall, KOR



TRANSPORT

01

Buizen Yacht 52, Hull 3, Design and photo: Buizen Yachts, AUS



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03 Intercity PKP Polska, InnoTrans

2016, Berlin, Design: Pesa, Contractor: Krause, PL, Photo: C. Kunze



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02

RV Caravan, KOR







04

UniLux 2020, InnoTrans 2016, Berlin, Design: Siemens AG, Contractor and photo: Krause & Railcomsys GmbH

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ARTWORKS

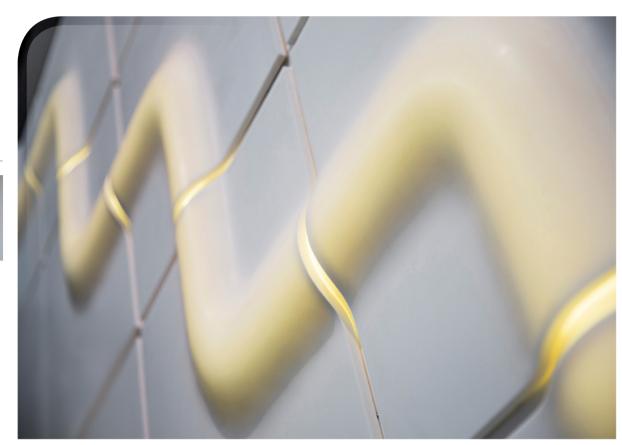
01

Façade module GDA 2016 – Special Mention, Design: Krause, Photo: Jonas Ratermann





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'Odyssey' desk, Design and image: Massive Design, PL









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03

'Pebble' table, St. Petersburg, RUS, Design and photo: Mikhail Belyaev for Karat & STARON® Russia



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GL1A + GL1B Sideboard, Design and photo: Guy Lafranchi Applied Design, CH

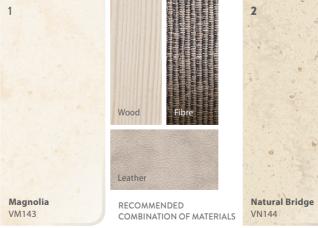




INSPIRATIONS PUBLIC BUILDINGS

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Lobbies and foyers are a company's and organisation's business card. The naturalistic decors and thermoform ability of the Supreme Collection ensure design versatility and flexibility in these areas.





RECOMMENDED Dandelion VD175.





RECOMMENDED COMBINATION OF MATERIALS



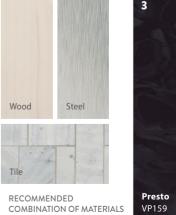
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GASTRONOMY

STARON[®] is an ideal material for the hospitality and restaurant industries, adding a heightened recognition factor to interior design. The Supreme Collection's naturalistic colours ensure an exclusive, aesthetically pleasing look.

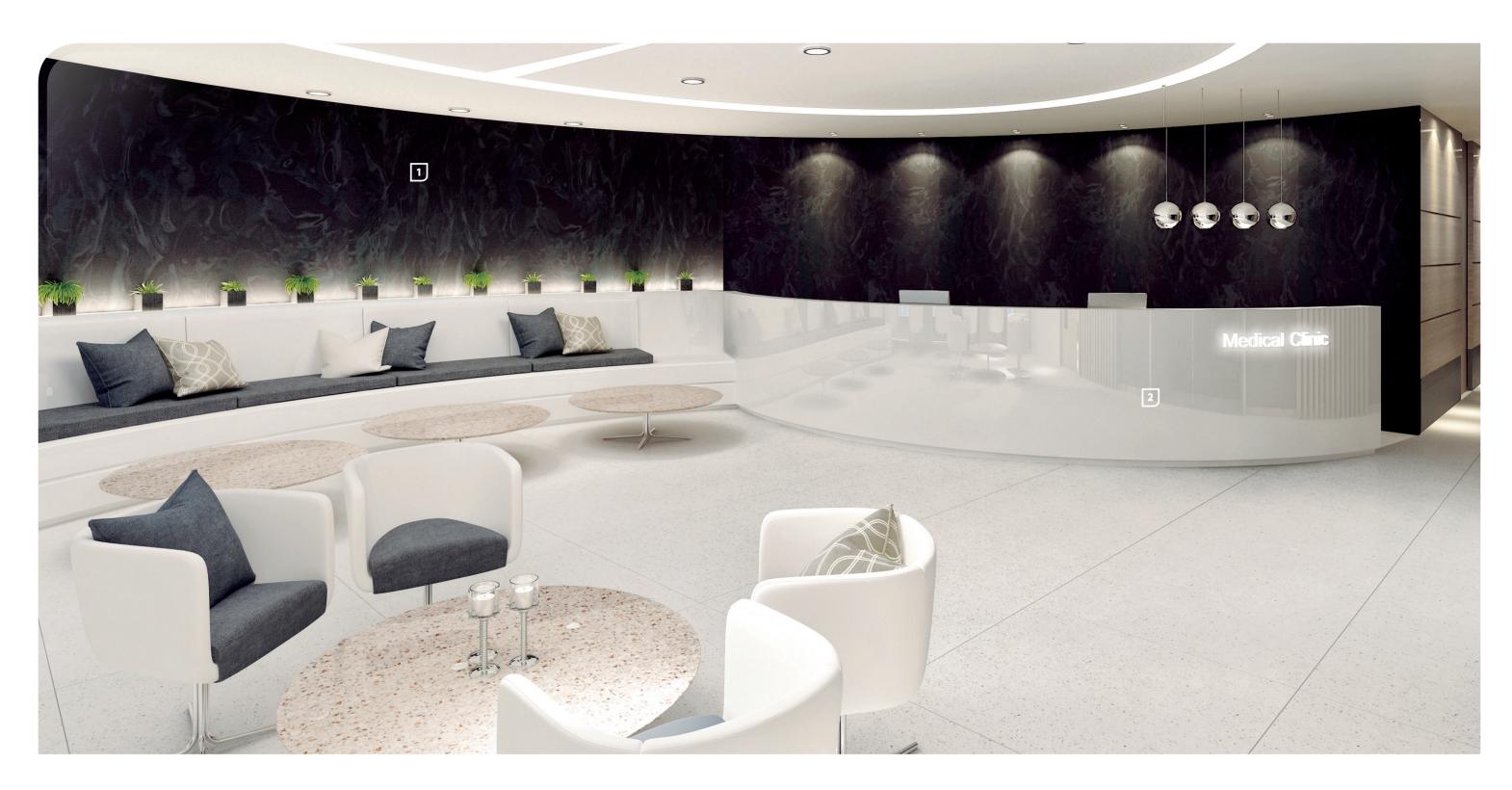


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RECOMMENDED COMBINATION OF MATERIALS



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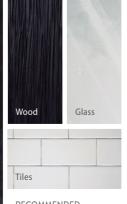
INSPIRATIONS

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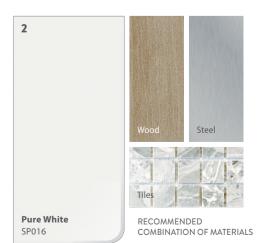
HEALTHCARE SECTOR

STARON[®] is exceptionally suited for use as a joint-free and highly hygienic design and functional element. Clear and neutral colours enrich the sensitive clinical ambience with modern, contemporary design.

Presto VP159



RECOMMENDED COMBINATION OF MATERIALS



STARON® COLOURS

Supreme™



Delphi VD111 🛠



Dawn VD126 🛠

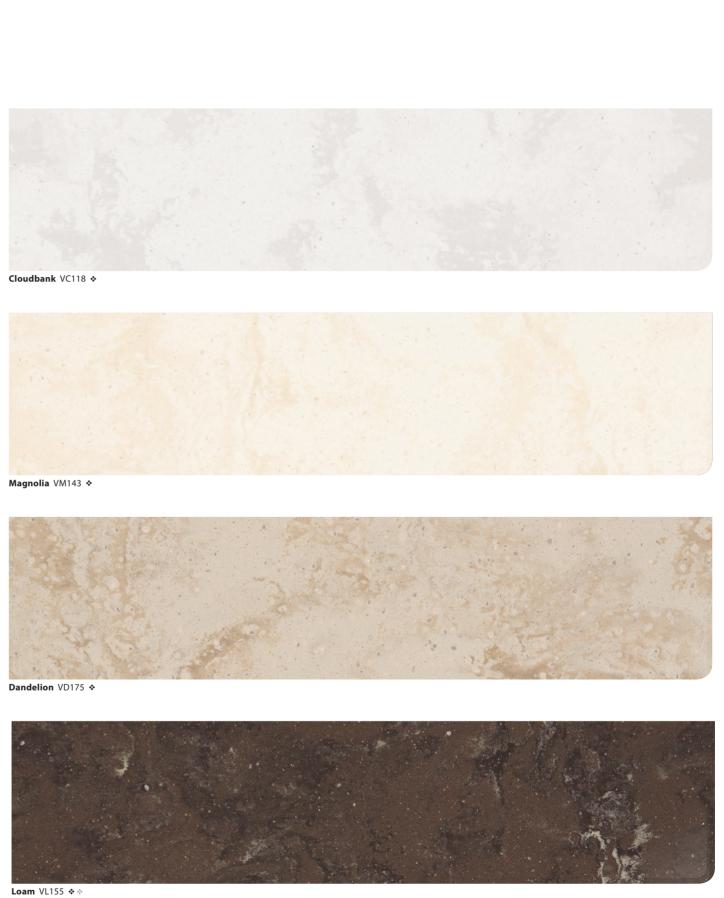
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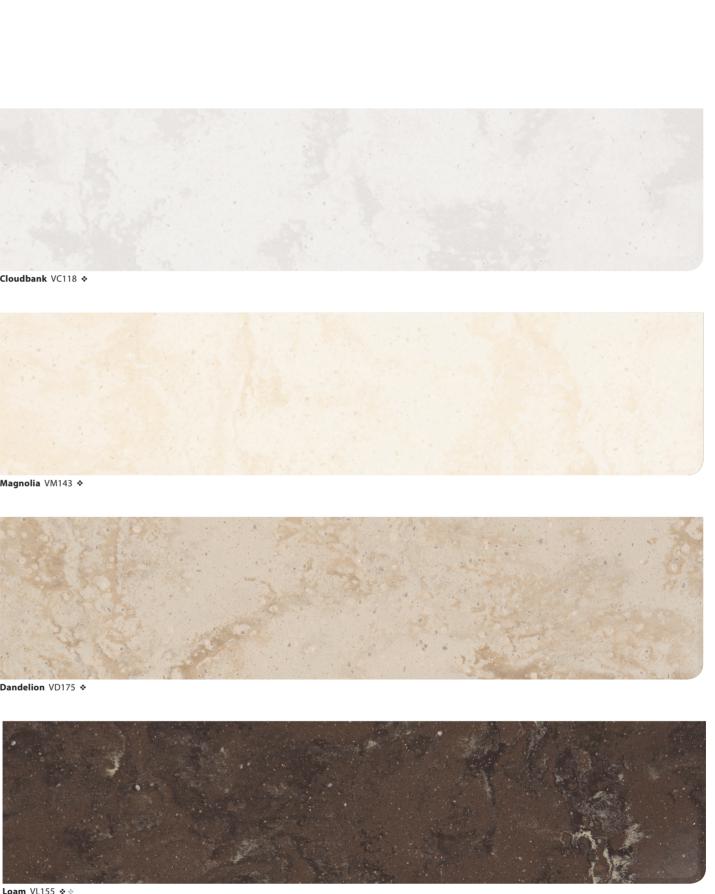
Natural Bridge VN144 *

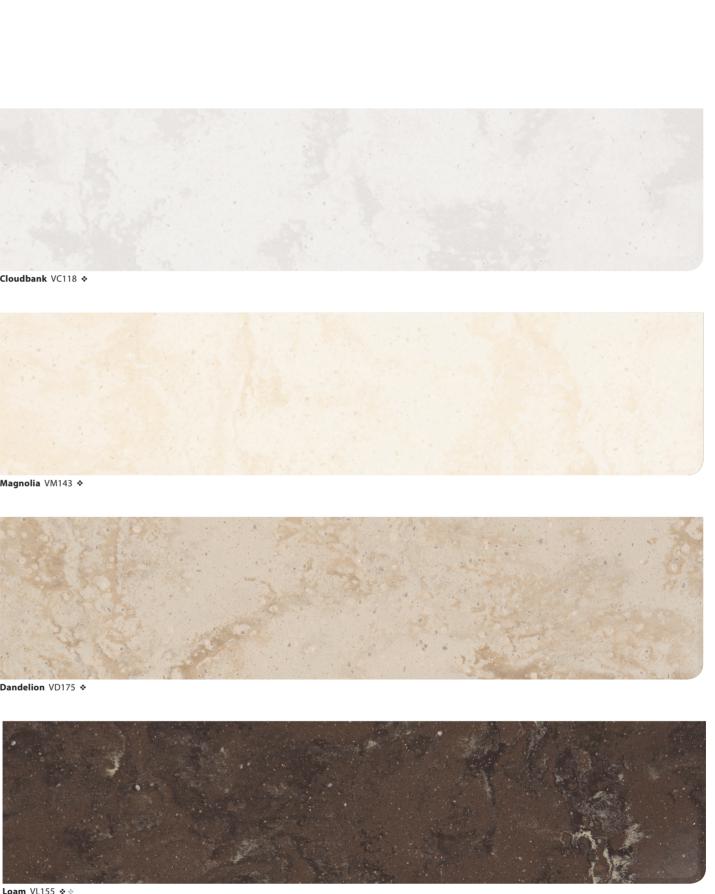


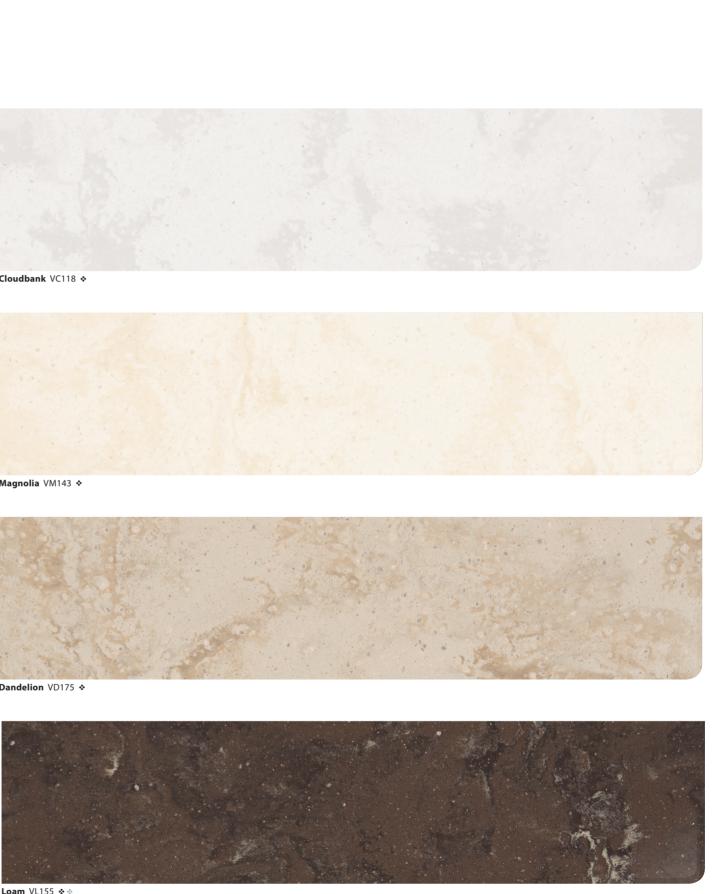
Ocean View VO171 *



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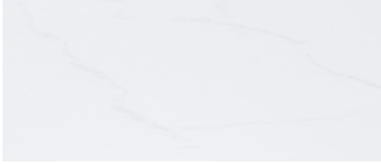
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Supreme[™]

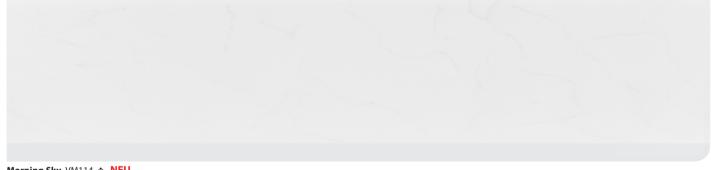


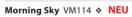
Beige Granite VB172 * NEU



Cotton White VC110 * NEU

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Urban Grey VU127 🔹 NEU



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SANDED

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Bright White BW010



SC063









Iris ∻ SI056



Natural ***** SV041



Mist SM022



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Sanded Cream * 🌈 SM421



Sanded Papyrus 🔹 SP474



Sanded Dark Nebula 🚸 DN421



Sanded Sahara 🔅 🌈 SS440



Sanded Vermillion * SV430



Sanded Chestnut � � SC457



Sanded Gold Dust * SG441





Sanded Tundra 🔹 🔅 ST482



SANDED

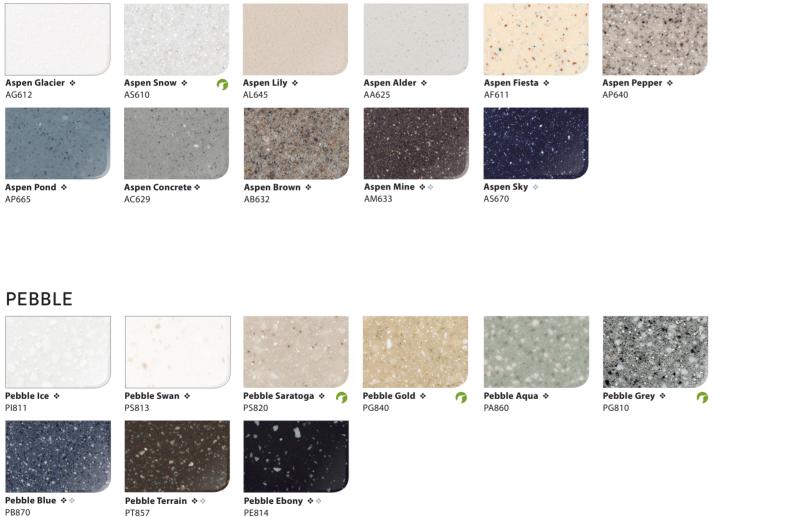




SO423

ASPEN

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QUARRY

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TO310



QS287

Quarry Starred *

METALLIC





Metallic Beach 🔹 🔅 EB545

Metallic Satingold ** ES558

tempest





Meteor *







Blaze 🔹 FB147



Gold Leaf **

Dazzle 🚸 FD191

STARON[®], an environmentally friendly material

Individual colours available depending on specific order quantities. Availability may differ depending on colour and size. The printed colours may differ from the sample. Please consult the original sample for colour selection.

- **7** STARON[®] colours with recycled materials
- Available in Rotterdam
- High-maintenance





















Caviar *

FC188























Earthen Bark * QL257



Quarry Minette 🔹 QM289





Metallic Sleeksilver ES581



Metallic Galaxy EG595





Sonoma * FS143



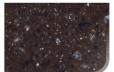
Coffee Bean 🚸 FC158



Starfire FS198



Silvercloud * FS122



Adamantine * FA159



Genesis * FG174



Radiance (Shimmer) * FR148











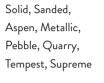
TREATMENT AND CARE

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PANEL SIZES

DEKORE





THICKNESS	WIDTH	LENGTH
mm	mm	mm
12	760	3.680

- White panels with a width of 930 mm are available in thicknesses of 6, 9 mm and 12 mm.
- White panels with a width of 1350 mm are available in thicknesses of 12 mm.
- Panel thicknesses of 9 mm and 19 mm available on request.
- High-maintenance decor themes and panel thicknesses of 6 mm are not recommended for horizontal

surfaces subject to harsh environments/stress.

DEKORE

Solid, Sanded, Aspen



THICKNESS	WIDTH	LENGTH
mm	mm	mm
6	760	2.500

STARON[®] 10-YEAR LIMITED WARRANTY

LOTTE ADVANCED MATERIALS EUROPE ('LOTTE') grants the owner a limited 10-year warranty on any STARON[®] installation constructed in accordance with LOTTE approved processing and application guidelines. For more information about the terms and conditions, please consult our website www.staron.com.



TREATMENT

Due to the advantages of STARON[®] joiners and carpenters can easily work the material with woodwork tools. Apart from sawing, milling, drilling, gluing and grinding, Staron can also be formed thermally. The following instructions are the basis for optimal processing in accordance with the client's wishes.

COMBINING WITH OTHER MATERIALS

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Please use permanently elastic industrial glue to combine the product with other materials. When doing this, it is important to take into account the expansion coefficient of each specific material. Alternatively, screw connections with plastic dowels or undercut anchors can be used.

GLUING

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STARON[®] panels are glued with a two-component adhesive that matches the colour of the panel. After the adhesive residues have been removed and the surface has been polished, the glue joints are almost invisible.

<image>

WALL CONNECTION PROFILES

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The use of a hollow profile is recommended to obtain an optimal, joint-free wall connection profile. The best way to achieve this is to join the STARON[®] groove panel elements with STARON[®] glue. Next, smooth out the radius (e.g. 12.5 mm) with a groove milling tool.





EXPANSION

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Left: The material specific expansion coefficient of $35.0 \times 10^{-6/K}$ (corresponding to 1 mm per metre at a temperature difference Δ T of 30° C) must be taken into account for all applications.

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CONFIGURATION OPTIONS

FORMING

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STARON[®] panels can be formed at 170°C, via either a vacuum or press process. The forming radii depend on material thickness and colour.

PANEL COLOUR	PANEL THICKNESS IN MM	RADIUS IN MM
Solid, Sanded	6	25
Solid, Sanded	12	76
Aspen, Pebble	12	127
Quarry, Metallic	12	203
Supreme	12	126

Tempest and Quarry colours are conditionally malleable. If you have any questions, please contact your STARON[®] Customer Services team.



Backlighting, sublimation printing and inlays are optionally available with STARON[®].

BACKLIGHTING

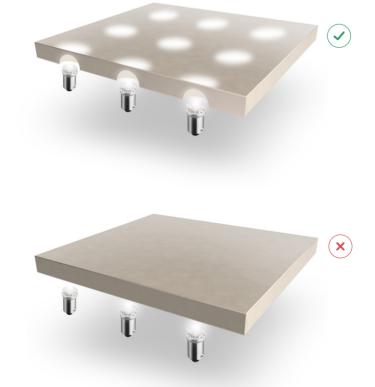
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Almost all colours are suitable for partial backlighting of translucent logos or lettering. Full-surface backlighting is possible for certain STARON[®] colours.

Milling out the STARON[®] panels creates optimal surfaces for LED backlighting for logos or design elements.







SUBLIMATION PRINTING

In a sublimation print process, images or colour pigments are pressed via heated paper foil onto the surface of the heated STARON[®] panel. The colour pigments remain abrasion-proof in the lower layer of the material, just like with tattooing.





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INLAYS

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After the milling process, different colour STARON[®] veins are glued together. The colour structures are retained and complement each other.

CASTING INLAYS

For smaller inlays, fill up the grooves in the panels with STARON[®] adhesive in the desired colour and grind off flush.

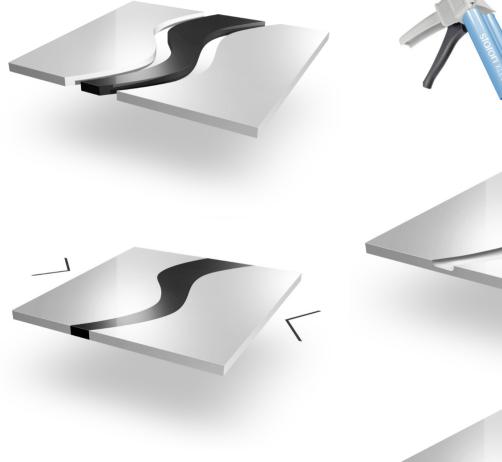
INTEGRATED HOBS

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Please pay attention to the following when integrating hobs into STARON[®] panels:

- Shape the inner corners with tapered radius
 Reinforce the inner corners and cut-out areas with STARON[®] panel elements
- Mask the panel edges with heat-protection tape
- The use of a heat-resistant support is recommended to avoid heat congestion caused by hot pans etc.



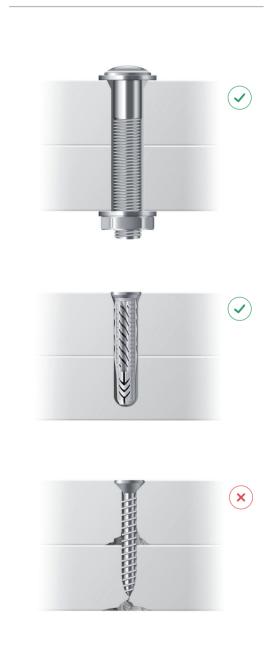




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SCREW FITTING

STARON[®] panels should never be screwed on directly or with self-tapping screws. Please use plastic dowels where possible. Alternatively, you can use penetrating screws or undercut anchors.



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SURFACE FINISHES

MATT FINISH

Matt finish is the standard finish for surfaces subject to harsh environments or strain.

storon®

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GLOSS FINISH

Gloss finish has a reflective gloss and requires, depending on use, more intensive care than matt or satin finishes, especially for darker colours. It is recommended to only use gloss finish for vertical areas.



SATIN FINISH

Satin finish has a high lustre and requires more care.

storon°

PRODUCT CERTIFICATIONS

TECHNOLOGICAL PROPERTIES

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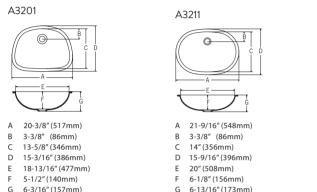
TESTS	STANDARDS	RESULTS	REQUIREMENTS
Bending strength σ fm		64.5 MPa	
Bending E-module Ef	EN ISO 178	9030 MPa	
Deflection		0.83%	
Pressure resistance σ dm	EN ISO 604	181 MPa	
Tensile strength	ASTM D 638	6000psi	
Density	ISO 1183	1.74 g/cm3	
Material Weight		20.88KG / D=12.2mm	
Surface hardness	EN 101	2 – 3	
Resistance against large bullet	DIN EN 438-2	1800 mm 12.2 mm material 700 mm 6 mm material	1300 mm 700 mm
Resistance against small bullet	DIN EN 438-2	> 25 N 6.1 and 12.2 mm	
Abrasion resistance	ISO 4586 p6	Weight loss established	
Resistance against 180°C dry heat	ISO 19712/12.2	3	3
Resistance against wet heat	EN ISO 19712-2	5	
Resistance against tempreature changes	EN ISO 19712-2	Section 4, passed	
Steam resistance	ISO 4586	3	
Resistance against boiling	ISO 4586	р7	
Change in weight		0.16	
Change in thickness		0.013 mm	
Load test	EN ISO 19712-2	No cracks / 0.10mm	
Resistance against cigarette burns	EN ISO 19712-2	3	
Surface changes		5	
El. transit resistance	EN 61340-5-1	960 x 10º Ω	
El. surface resistance	EN 61340-4-1	1 x 10 ¹² Ω	
Thermal expansion	ASTM D696	3.6 x 10-5m/m	
Water absorption	ASTM D570	0.04% in 24h	
Light-fastness	DIN EN 438-2	Grey standard > 4 Blue wool scale > 6	Blue wool scale = 5
Microbiology	DIN EN ISO 846 Part A & C		
Chemical resistance	DIN EN ISO 19712-2	Method A	
Slip resistance	DIN 51130 DIN 51097	R 10 C	
Fire protection	DIN 4102-1	B1	
Fire protection	DIN EN 13501-1	B-s1, d0	
Fire protection	DIN EN 4554-2	R1 / HL3	
Facade authorisation	ETA – 16/0091	Fastening with KEIL undercut anchor	

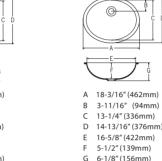
Certificates, test results and information about the properties of Staron® and Tempest in particular, can be obtained upon request from STA-RON[®] Customer Services.

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SINK & BOWL ADA COMPLIANT

LAVATORY SINKS / BASINS





A3181

G

10" (254mm)

 \bigcirc

A 23-5/16" (592mm

B 16-5/8" (422mm)

19" (482mm)

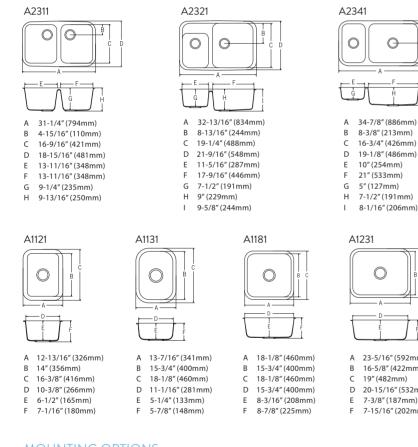
D 20-15/16" (532mm)

7-3/8" (187mm)

F 7-15/16" (202mm)

KITCHEN / UTILITY SINKS

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Under mount

MOUNTING OPTIONS



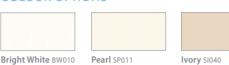


Angled mount

• Sink & Bowls internal specifications are noted below.

- LOTTE ADVANCED MATERIALS does not guarantee the colour match of Sink & Bowls and sheets.
- Staron Sink & Bowls are at best implemented in a product of these three colours :

COLOUR OPTIONS



DESIGN OPTION

An integral sink will improve the efficiency and hygienic qualities of a kitchen or bath area and, particularly, interior commercial applications. Staron all-acrylic sinks and bowls are installed in combination with Staron sheet materials as part of a continuous surface featuring imperceptible seams for a perfect, uninterrupted fit. That also means there are no gaps or crevices for bacteria or mold to accumulate and grow. Whichever style you choose, Staron's non-porous, hygienic surfaces will always be easy to clean and maintain. Choose from three coordinated sink colour options from a collection of ten, popular models



CARE & MAINTENANCE

STARON® SURFACES

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STARON® offers you an easy-care, durable material that can be cleaned, maintained or repaired with little effort. The maintenance effort required for STARON[®] and its durable flawless surface in general depends on the colour and the selected finish. Brighter colours and matt finishes require less care than dark colours and glossy finishes.

For standard care and maintenance, wipe STARON® surfaces with a damp cloth or sponge on a daily basis.



Small scratches or stubborn stains on surfaces with matt or satin finishes can be removed by making circular movements with a wet sponge and scouring agent. Next, rinse with clear water and dry off with a dry cloth to avoid the creation of stripes.

Do not use abrasive cleaners, scrubbing sponges or wire wool for dark colours and glossy finishes. To avoid dulling down the gloss, only use a mild cleaner without abrasive and a soft cloth.

Disclaime

The contents of this brochure have been prepared by the manufacturer with the utmost care. The contents are updated regularly and in a timely manner. Nevertheless, it cannot be excluded that the brochure might contain mistakes. Despite careful verification, the manufacturer cannot assume unlimited legal liability for the accuracy, completeness and up-todateness of this brochure. The manufacturer in particular does not assume liability regarding any damages or consequences resulting from the use of the contents provided.

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INSTRUCTIONS

Please adhere to the following instructions in case of damage, dirt or stains:

- Never put hot pots or pans on STARON® surfaces. To avoid heat congestion, always use heat-resistant supports or coasters with soft feet.
- Do not expose STARON[®] surfaces to aggressive chemicals or corrosive substances. Rinse immediately after contact.
- Do not leave staining foodstuffs or remains on the surfaces. Rinse immediately after contact.
- Avoid cutting on STARON[®] surfaces, always use a cutting board.

Your joiner-carpenter can repair deeper scratches or stubborn stains by grinding them down.



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LOTTE WORLD TOWER



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LOTTE

LOTTE is a worldwide Korean company. Founded 50 years ago in Seoul, South Korea, the company has successfully developed through acquisitions and partnerships – especially in Japan and other Asian countries – to become a world leader in the chemical, construction, tourism, retail, finances and food industries.

Since LOTTE acquired the Samsung chemical business in May 2016, the newly founded LOTTE ADVANCED MATERIALS company including its STARON[®] solid surface material and Radianz quartz are also part of the business. LOTTE ADVANCED MATERIALS is further expanding the international distribution network that was developed in the acquisition process.

In Europe, LOTTE ADVANCED MATERIALS EUROPE GmbH in Frankfurt am Main is responsible for STARON[®] Solid Surfaces sales, marketing and consultancy.

A brand that cannot be overlooked: With its 555 metres, the LOTTE World Tower in Jamsil-Dong, Seoul, is the highest building in Korea and the 5th highest in the world. The impressive complex surrounding LOTTE World Tower includes a mall, hotels and a theme park.

LOTTE ADVANCED MATERIALS

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LOTTE ADVANCED MATERIALS EUROPE GMBH

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