

staron®  
Solid Surfaces



www.staron.com



LOTTE CHEMICAL

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MIDDLE EAST & AFRICA

**STARON**

SOLID SURFACES



LOTTE CHEMICAL

# STARON

SOLID SURFACES



Building on the 50 years of growth we achieved through our ceaseless efforts to push ever further and pursue innovation, we are now bounding ahead yet once more to become a truly lasting centennial company. We will emerge as a company that contributes to the creation of social value and pursues a sustainable future and one that is both beloved and trusted by customers the world over.

At LOTTE, our journey continues to bring our ambitious goal to fruition, as we become a global business that lends itself to the creation of a more flourishing life for all.





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Lotte World Complex



Lotte New York Palace Hotel



Lotte Food



Lotte Duty Free



Lotte Mart



Lotte World Mall



Lotte Ria Fast-Food

# **LOTTE GROUP** Lifetime Value Creator

Founded in 1967, LOTTE has grown through strategic acquisitions and partnerships into a global pioneering group based in Korea, spanning Chemicals, Construction, Tourism, Retail, Finance, and Food industries.

As LOTTE plans for the next 50 years, it remains dedicated to building a better world through bold change and innovation.

## 2020 SALES PERFORMANCE BY BUSINESS

Retail	Chemical, Construction	Tourism, Service	Food
39%	34%	14%	13%

Business ranking in Korea*	5th
Companies	46
Assets*	KRW 125.7 trillion
Sales*	KRW 56.4 trillion
Employees	180,000

\* Source - May 2021 announcement by the Korea Fair Trade Commission.





# LOTTE CHEMICAL

## Business Unit

Founded in 1976, LOTTE's Chemical Business Unit is Korea's leading chemical company and a global top7- player.

With 26 affiliated companies, it produces Polymers, Monomers, basic Petrochemicals, Megatrend Products, and Advanced construction and Interior materials, all driven by superior R&D and unmatched expertise.

MAIN PRODUCTS

Basic Chemicals			Advanced Materials		
Petro-chemicals	Polymer	Monomer	Plastics	Interior Materials	Water Treatment Membrane

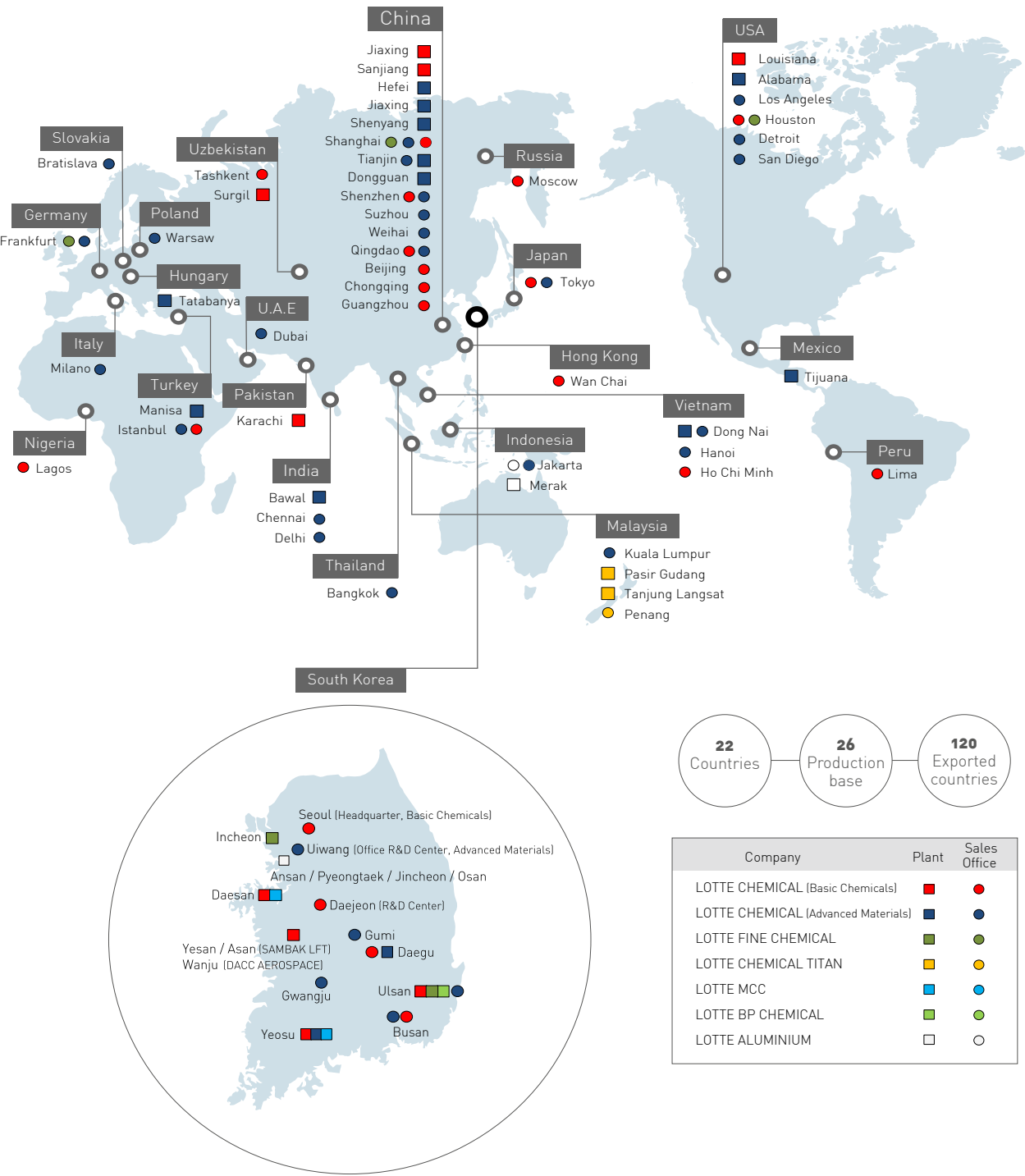
Global ranking	7
Companies	26
Equity	KRW 13,712 billion
Sales	KRW 12,223 billion
Exported countries	120
Employees	10,729

\* As of 2020 business performance.





GLOBAL Presence

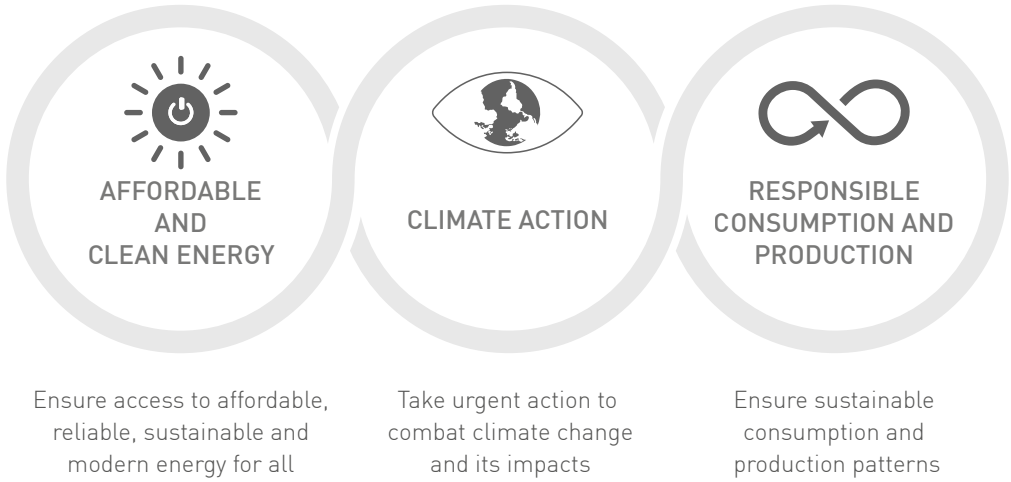


SUSTAINABILITY LOTTE's Green Promise 2030

LEAD EVERY STEP FOR A GREENER AND BETTER TOMORROW

LOTTE Chemical is taking the lead in implementing the UN's Sustainable Development Goals. We are focused on achieving carbon neutrality and creating a circular cycle of resources, thereby contributing to these goals.

LOTTE Staron and Radianz strive to fulfill its corporate economic, social and environmental responsibilities and to move toward a sustainable tomorrow by protecting the one and only planet Earth.



SUSTAINABILITY MANAGEMENT SYSTEM

 Compliance Management	 Ethical Management	 Environmental Safety Management	 Social Contribution	 Mutual Growth
Operation of the compliance system by building global level compliance infrastructure	Establishment of a transparent, fair, and rational management culture	Investment in eco-friendly equipment, strengthening of preemptive safety and health management system, and product development	Improvement of corporate image and reputation by carrying out strategic community contribution programs	Establishment of fair trade practice and support for the strengthening of the partner companies' competitiveness



## ADVANCED MATERIALS

### Plastic and Interior Products

VALUE OF LIFE ENHANCED BY CHEMICAL SOLUTION

LOTTE Chemical, global manufacturers for a broad range of high-quality solutions that create new value and drive innovation in everyday life. By leveraging both basic and advanced materials, we deliver products that meet the highest standards of excellence and sustainability.

Cutting-Edge  
Plastic Materials

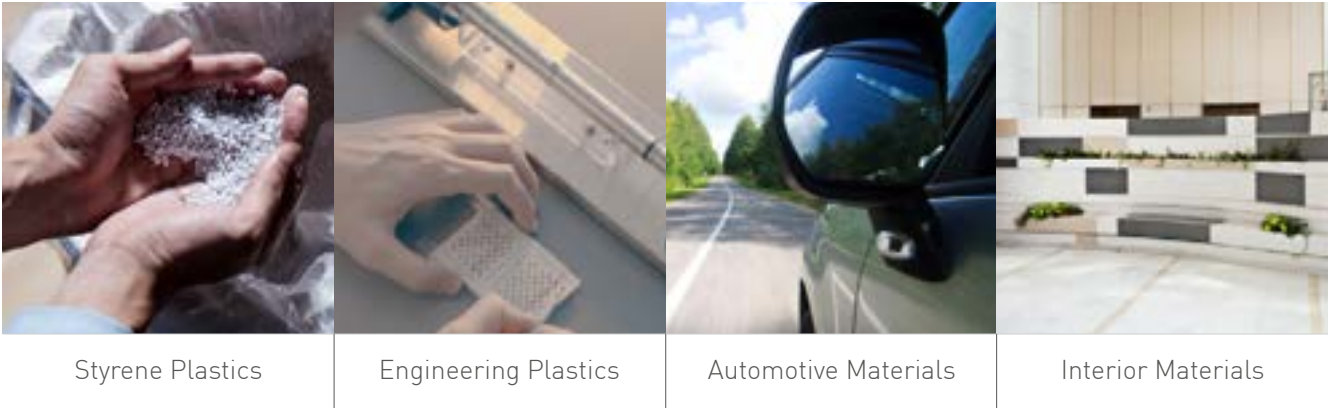
Value of product  
enhanced by  
integrated solution

starex® INFINO

Upscale  
Interior Materials

Refined and pleasant  
space through  
tech and design

staron® Radianz®  
Solid Surfaces Quartz Surfaces

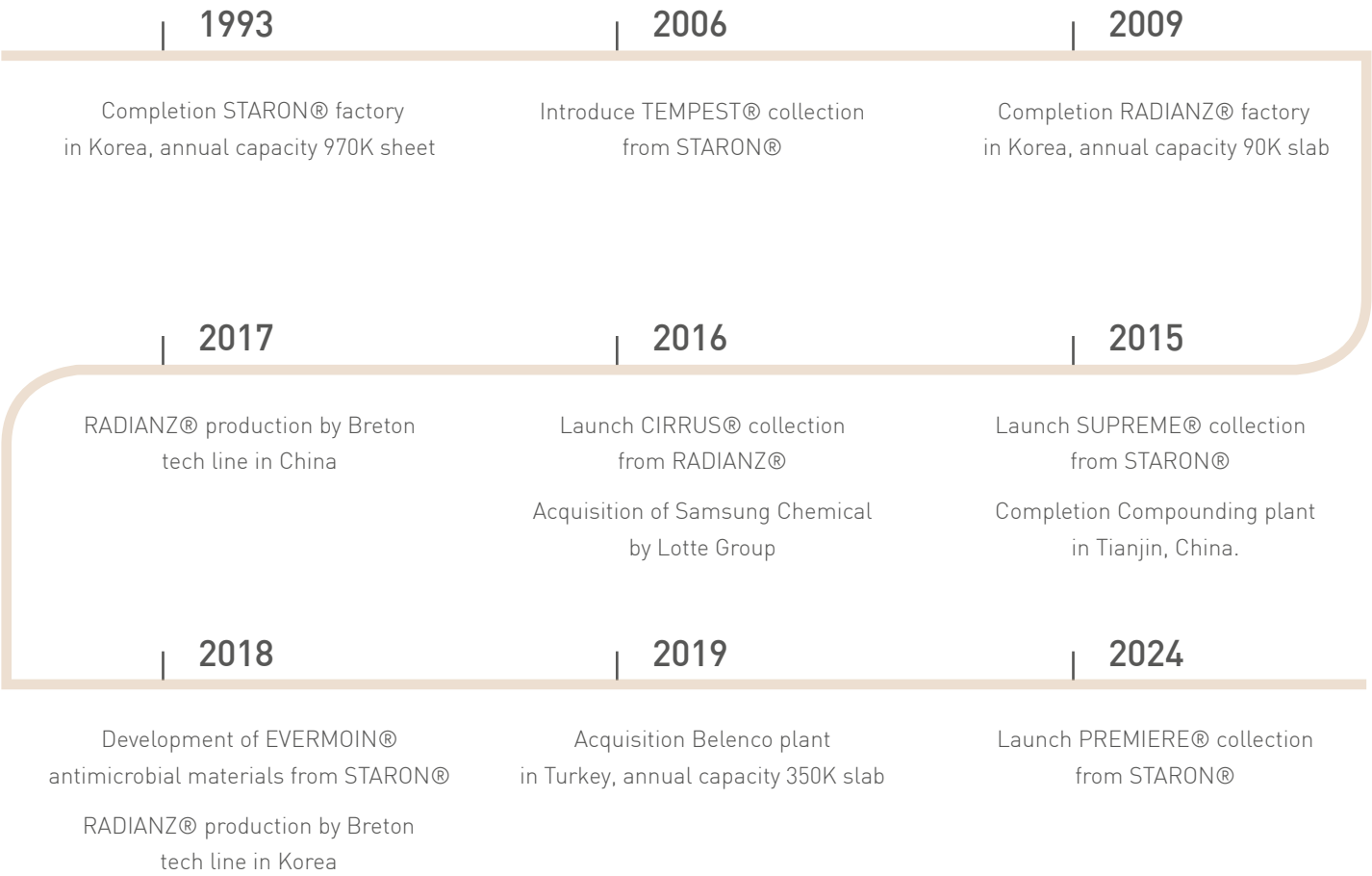


## INTERIOR MATERIALS

### Brand and Product History

THE EVOLUTION OF STARON AND RADIANTZ

We have reached significant milestones and expanded globally to become leaders in solid surfaces. This timeline showcases key events and achievements for STARON® and RADIANTZ®, reflecting our commitment to innovation, excellence, and our core values.



## STARON Introduction

### PREMIUM SOLID SURFACES

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 architects and designers maximal freedom.

Although STARON® incorporates all important qualities of stone, it can be worked by fabricators 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.

## LIFESTYLE YOUR DESIGN INSPIRATION BY STARON

### NATURAL

Displaying graceful and delicate patterns, Staron evokes the natural character of stone while offering all the practical benefits of a solid surface. For those looking to create a warmer scheme, **Latte Cream** is the ideal choice and perfectly suited to any type of residential environment.



### LIVELY

From your house to your favourite café and restaurant, Staron can inject dynamism and spirit into any space, ensuring everybody can feel the energy in all directions. **Arctic White** is perfect for creating unique and remarkable spaces. A Staron colour adds drama and sophistication to any interior scheme.



### URBAN

Designed with modern living in mind, The Urban Series collection from Staron introduces an effortless urban chic to interiors. Our collection is inspired by the wave of contemporary industrial design trends that have captured the world of interiors. Select the deeper and more detailed of **Stucco Haze** to create a subtle urban style.







## STARON BENEFITS

### Experience The Possibilities

#### WHY STARON?

Staron® solid surface materials boast dimensional flexibility and low maintenance and is ideal for a multitude of interior applications. Comprised of a wide range of color and pattern options, Staron® is non-porous, ultra-hygienic and ultimately durable. The Premiere and Supreme collections offer high-transparent gemstone textures and elegant, refined vein patterns like natural marble.



#### RELIABLE PERFORMANCE

- Cutting-edge technology sets a new standard in surface
- Able to be inconspicuously repaired due to its homogenous composition



#### INFINITE RANGE OF COLORS

- Over 150 color options ranging from natural to vivid
- Ongoing collaboration with color trend experts keeps Staron commercially relevant



#### GLOBAL NETWORK

- Regional branch offices and product distribution networks worldwide



#### HYGIENIC SURFACE

- Non-porous surface inhibits growth of mold and bacteria
- Resistant to heat and abrasion
- Able to refurbish to a new condition



#### IMPERCEPTIBLE SEAMS

- Consistent color and texture on every sheet provides a smooth and seamless surface
- Installed without gaps, crevices, or obvious joint-lines



#### TRANSLUCENCY

- Creative back-lighting effects created by altering the thickness of the material to allow transmission from a low-energy light source



#### DIMENSIONAL FLEXIBILITY

- Thermo-formable into three-dimensional shapes
- Excellent workability enables virtually unlimited design possibilities



#### RELIABLE QUALITY

- Advanced quality control policy and a commercial - 10year warranty
- Certified eco-friendly by Greenguard and Scientific Certification System

COLORS OF STARON®

PREMIERE (NEW)



Largo VL312

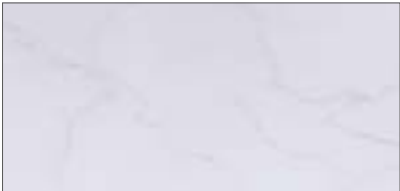


Legato VL322



Gravita VG392

SUPREME



Cotton White VC110



Morning Sky VM114



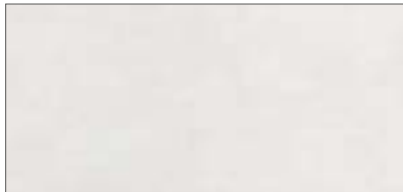
Tranquil VT115



Downy White SF100



Downy Dove SP105



Flux VF113



Arctic White VA311



Rotor Cloud VR322



Latte Cream VL343



Ocean View VO171



Magnolia VM143



Beige Granite VB172



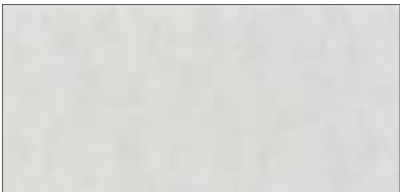
Natural Bridge VN144



Dandelion VD175



Loam VL155



Cloudbank VC118



Dawn VD126



Urban Grey VU127



Ash Concrete VA129



Presto VP159





TEMPEST



Peak FP100



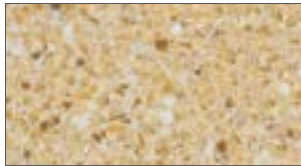
Twilight FT113



Shell FS115



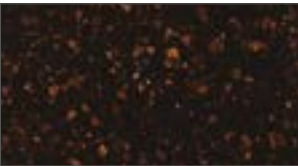
Mystic FM178



Rattan FR124



Coffee Bean FC158



Radiance(Shimmer) FR148

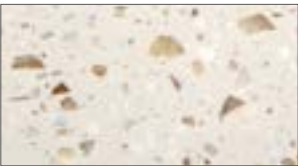
QUARRY / TERRAZZO



Mosaic Dalmatian QD212



Quarry Oyster T0310



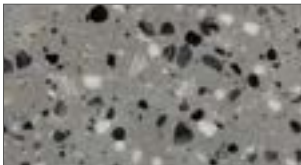
Terrazzo Bologna NT970



Quarry Ridge QR278



Terrazzo Venezia NT150



Terrazzo Torino NT981



Quarry Starred(N) QS288



Terrazzo Como FT191

PEBBLE



Pebble Moon PM832



Pebble Frost PF812



Pebble Swan PS813



Pebble Boulder PB852



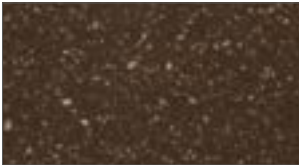
Pebble Saratoga PS820



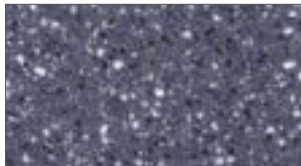
Pebble Chiffon PC842



Pebble Gold PG840



Pebble Terrain PT857



Pebble Blue PB870



Pebble Grey PG810



Pebble Ebony PE814

ASPEN



Aspen Glacier AG612



Aspen Snow AS610



Aspen Alder AA625



Aspen Concrete AC629



Aspen Eggshell AE642



Aspen Iceberg AI612



Aspen Glow AG636



Aspen Brown AB632

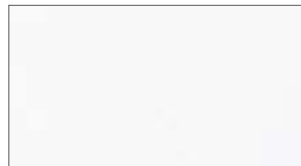


Aspen Grey AG620

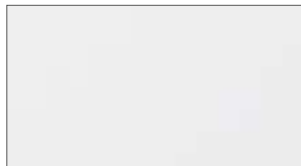


Aspen Mine AM633

SANDED



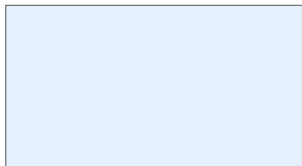
Sanded Icicle SI414



Sanded Dover SD413



Sanded Mint SM463



Sanded Iceblue SI462



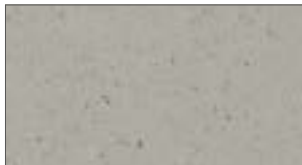
Sanded Birch SB412



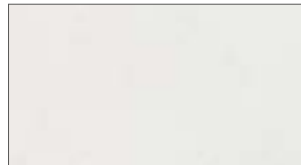
Sanded W-Pepper WP410



Sanded Grey SG420



Sanded Heron SH428



Sanded Cream SM421



Sanded Sahara SS440



Sanded Gold Dust SG441



Sanded Vermillion SV430



Sanded Clay SC475



Sanded Chestnut SC457



Sanded Taupe ST486



Sanded Onyx SO423



TEMPEST STELLA (NEW)



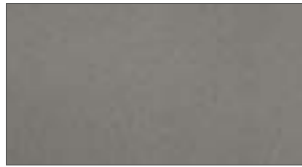
Tempest Stella Cygnus FC117



Tempest Stella Lyra FL175



Tempest Stella Vela FV126



Tempest Stella Grus FG188

STUCCO (NEW)



Stucco Cotton NC912



Stucco Angora NA972

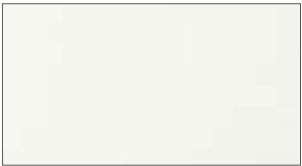


Stucco Earth NE945

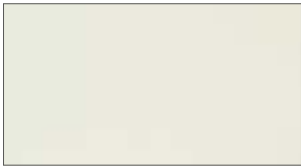


Stucco Haze NH988

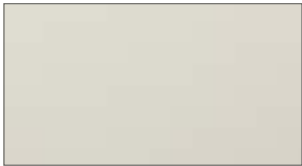
ECLIPSE (NEW)



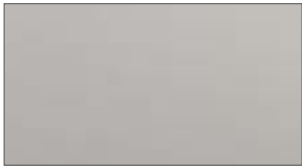
Eclipse White SW412



Eclipse Cream SC444

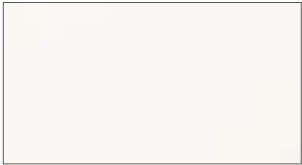


Eclipse Aeon SA473



Eclipse Luna SL477

METALLIC



Metallic Yukon EY510



Metallic Sleeksilver(N) ES582

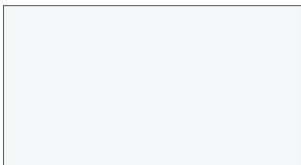


Metallic Galaxy EG595

EVERMOIN (Antimicrobial)



Angel White MA020



Ultra Bright MU010



Limpio ML612

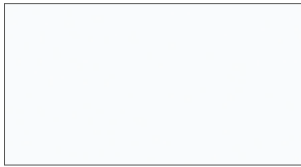
SOLID



Dazzling White SD001



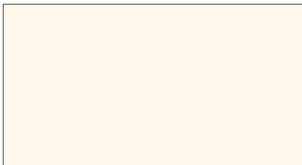
Bright White BW010



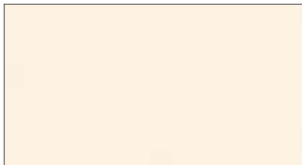
Quasar White SQ019



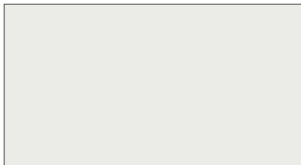
Pearl SP011



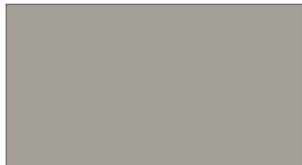
Natural SV041



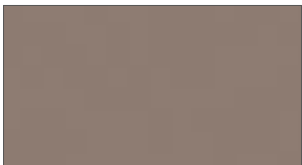
Ivory SI040



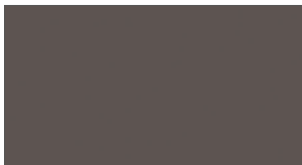
Fog SF020



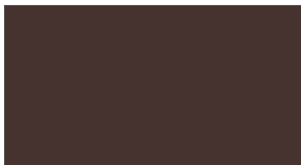
Bliss SB022



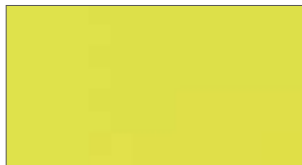
Serene SS023



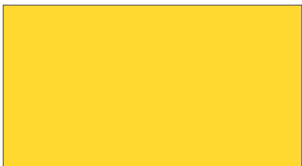
Steel ST023



Iris SI056



Oasis SO064



Sunflower(N) SS042



California Poppy(N) SC052



Univers(N) SU053



Ultramarine SU067



Forest SF061



Piano Black GP790

Printed colors may vary from actual samples, review actual sample prior to selection.

To view new colors in greater detail, please visit [www.staron.com](http://www.staron.com)

Translucent

Antimicrobial

Exterior Material

Eco-Friendly







## PREMIERE

### A Nature-Inspired Journey

Captured by the intricate lines found in natural marbles, our new Premiere design from Staron® embodies the essence of veins with unparalleled richness. Evolved from our esteemed Supreme Collection, this masterpiece seamlessly blends two captivating colors of vein, the soft patterns of the natural stone were grafted onto the acrylic surfaces elevating luxury to new heights.



**Legato** VL322



**Gravita** VG392







**Largo** VL312



**Legato** VL322



**Largo** VL312



## **SUPREME** Intimate Moments

Translucent / Mystical / Organic Pattern

The upgraded Supreme from Staron® is inspired by marble that has non-uniform patterns and cracks of nature formed by long-enduring harsh natural conditions. The veins convey a sense of depth by the effects of reflection, refraction, and overlay through light. The lighting transmission effect relieves people's anxiety and isolation by providing emotional stability. Depending on the presence or absence of lighting, three types of interpretation are possible, so it can be used not only for countertops but also as wall-claddings.





Arctic White VA311



Rotor Cloud VR322



Arctic White VA311

Rotor Cloud VR322

Latte Cream VL343



Dandelion VD175



Magnolia VM143



Dandelion VD175



Loam VL155



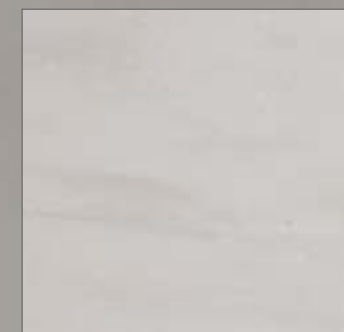




**Cloudbank** VC118



**Dawn** VD126



**Ash Concrete** VA129

**Ash Concrete** VA129





**TERRAZZO**  
Designed With Modern Living







Terrazzo Venezia NT150

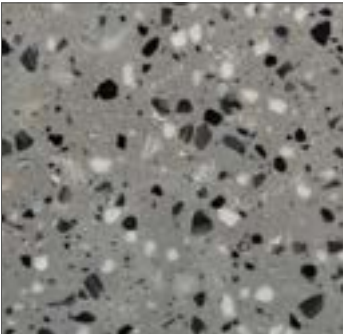


Terrazzo Como FT191

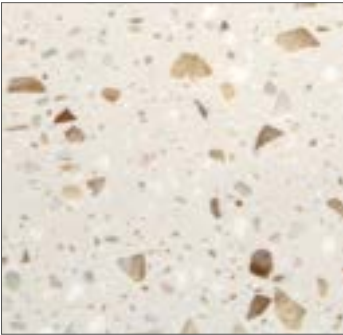




Terrazzo Torino NT981



Terrazzo Torino NT981



Terrazzo Bologna NT970







## TEMPEST STELLA

Subtle Glow

Maintaining the sophistication of Staron's new Tempest collection, the Tempest Stella is reintroduced, blending emotive colors with luxurious allure to create a sense of luxury that is not burdensome by combining the colors commonly used in interior design and utilizing a foundation of White, with complementary additions of Beige and Grey.



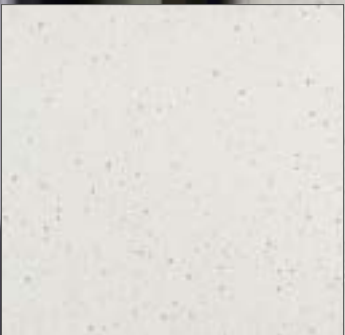




Tempest Stella Cygnus FC117



Tempest Stella Lyra FL175



Tempest Stella Vela FV126



Tempest Stella Lyra FL175



## STUCCO

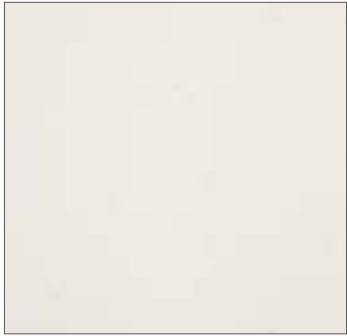
### Timeless Appeal and Versatility

Moving beyond the typical blend of large and small chips, Stucco from Staron® cultivates a serene atmosphere through blending lime, fine sand, and other elements into a paste with the hues of nature. The base features a subtle, feather-like pattern with occasional inclusion of semi-transparent chips, creating a visual effect reminiscent of finely embedded pebbles in a polished wall.

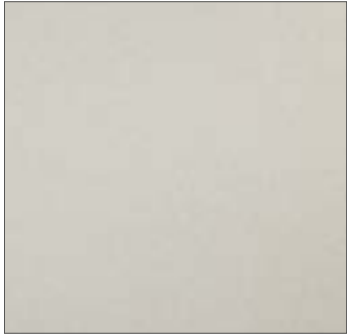




Stucco Cotton NC912



Stucco Angora NA972



Stucco Earth NE945



Stucco Angora NA972



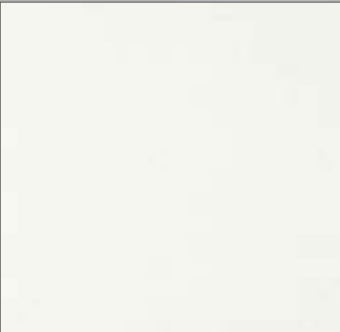


## ECLIPSE

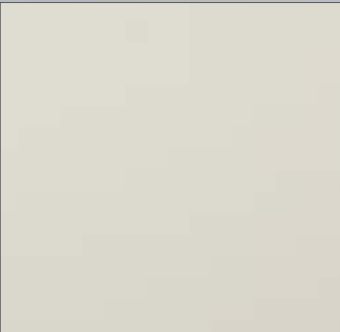
### A Harmonious Blend of Nature and Vitality

The Eclipse collection from Staron® encapsulates the durability of natural stones interwoven with everyday fleeting moments, infused with a subtle shimmer of luxury. Exemplifying durability through the exclusive use of individual sand chips and enhanced with fine delicate particles to subtly shimmer at different angles.

Inspired by the glorious moment of a solar eclipse when the moon engulfs the sun, nature continues to solidify and evolve. Just as meditation strengthens our inner selves, Eclipse offers a soothing ambience to become a source of vitality in our daily lives.



Eclipse White SW412



Eclipse Aeon SA473







**SOLID**

Color Healing

Distinct / Optimistic / Energizing

Color conveys simple yet powerful messages, and it contains numerous emotions. Intense colors communicate rich sensibility as well as lively and friendly atmosphere full of positive energy. These refreshing colors inspired by nature can be expected to have greater effects when harmonized with the existing staron® colors in various commercial spaces.



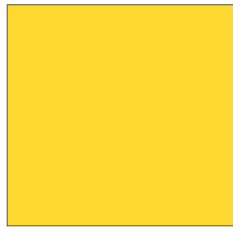
Ultramarine SU067



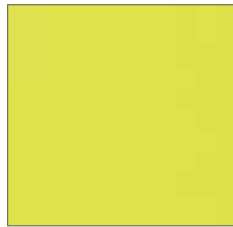
Fog SF020



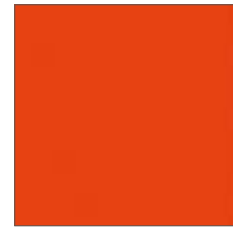
Ivory SI040



Sunflower(N) SS042



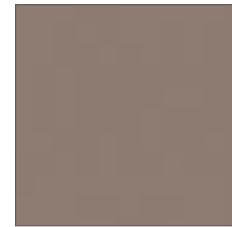
Oasis S0064



California Poppy(N) SC052



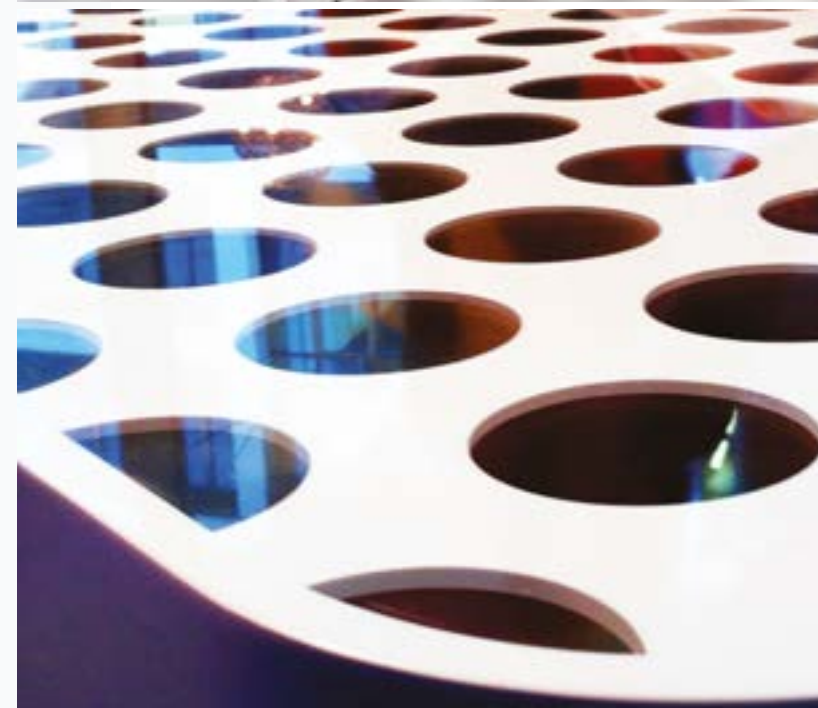
Univers(N) SU053



Serene SS023



Steel ST023





**SUPER-FLEX STARON®**  
3D Dramatic Curves and Flexibility

Staron® Super Flex boasts superior thermoplastic capabilities that can create limitless possibilities of shapes and designs from the slightest curves to extreme bends for internal and external walls.

Samsung HR Development Center - Exhibition Hall, Korea

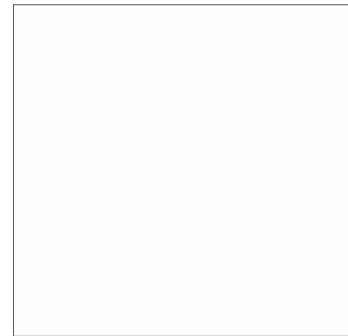
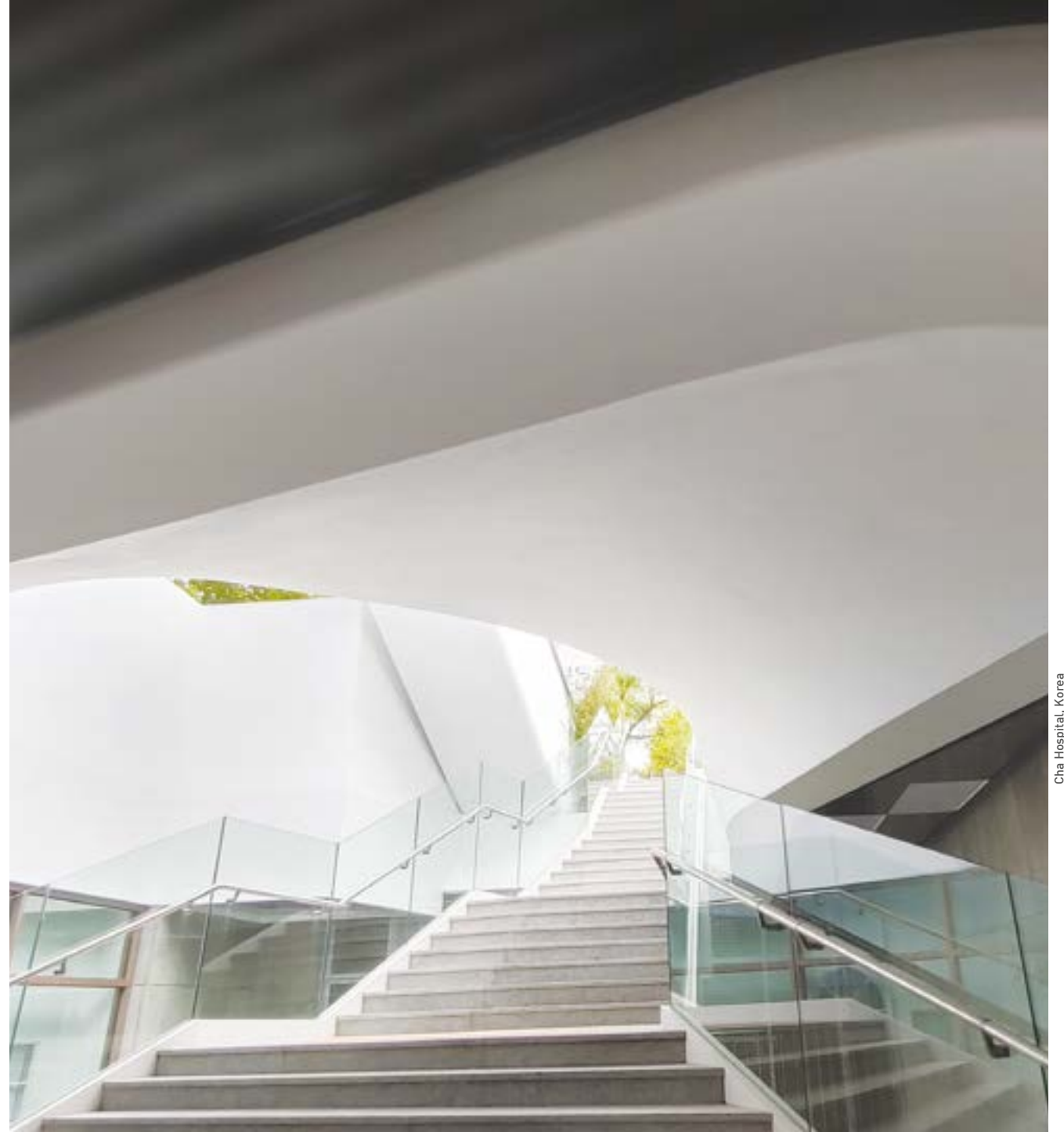


A symphony of curves and light, redefining modern architecture with its fluid forms and visionary design, capturing the essence of Zaha Hadid's innovative spirit in claddings, displays, and furniture.



Dongdaemun Design Plaza & Park, Korea





**Bright White** BW010



**Aspen Snow** AS610



**Sanded White Pepper** WP410



# ANTIMICROBIAL STARON®

## For Healthcare

evermoin®

The healthiest Ultra-Hygienic choice for your design


Staron evermoin® can be applied to almost any interior space within a healthcare facility. Imagine casework, work-stations and wall-cladding in a functional and renewable material that is durable as well as ultra-hygienic.

BENEFITS OF STARON EVERMOIN®



Ultra-Hygienic

Speedy ultra-hygienic effect and action on representative bacteria and fungi



Durability

Excellent Ultra-Hygienic retention and Confirm quality stability and durability



Safety

Material certification harmless to human body and environment (EPA, NSF, FDA)








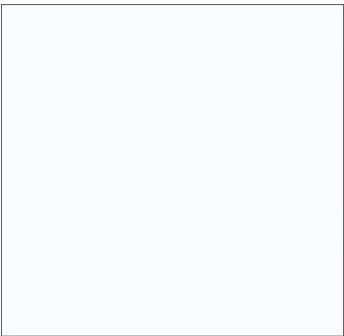
Eco-friendly

Achieved SCS Recycled Content Certification commitment to conserving natural resources. [SCS Recycle %6]

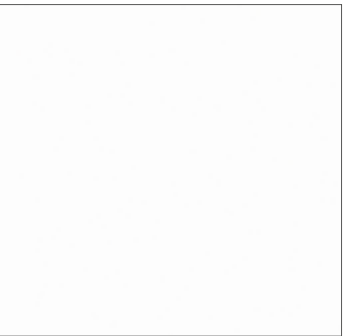
SAFETY PROPERTIES

Obtained certification that guarantees sanitary safety and reliability harmless to the human environment such as Japan SIAA and US NSF and FDA.

Harmless to human body			Safe for food contact	Eco-friendly
 <p><b>SIAA</b> Society of International sustaining growth for Ultra-Hygienic Articles</p>	 <p><b>EPA</b> US Environmental Protection Agency</p>	 <p><b>FDA</b> US Food &amp; Drug Administration</p>	 <p><b>NSF</b> National Sanitation Foundation</p>	 <p><b>Eco-Friendly</b> SCS Global Services</p>



Ultra Bright MU010



Angel White MA020



Limpio ML612



University of Queensland, Australia



Dental Hygiene School, Swiss



SINK & BOWL FROM STARON®

COLOR OPTIONS



Bright White BW010



Pearl SP011



Pure white SP016



Quasar White SQ019



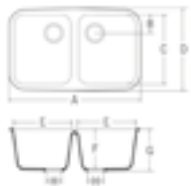
Ivory SI040



Double Sink A2311

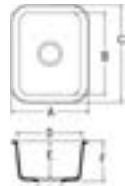
KITCHEN / UTILITY SINKS

A2311



- A 794mm
- B 110mm
- C 421mm
- D 481mm
- E 348mm
- F 235mm
- G 250mm
- H 90mm

A1121



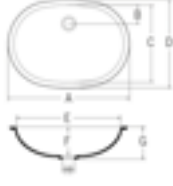
- A 326mm
- B 356mm
- C 416mm
- D 266mm
- E 165mm
- F 180mm
- H 90mm

A1231



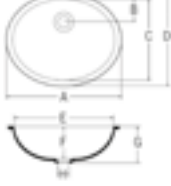
- A 592mm
- B 422mm
- C 482mm
- D 532mm
- E 187mm
- F 202mm
- H 90mm

A3211



- A 548mm
- B 86mm
- C 356mm
- D 396mm
- E 508mm
- F 156mm
- G 173mm
- H 45mm

A3181



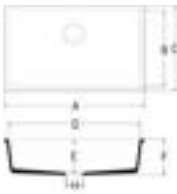
- A 462mm
- B 94mm
- C 336mm
- D 376mm
- E 422mm
- F 139mm
- G 156mm
- H 45mm

A1181



- A 460mm
- B 400mm
- C 460mm
- D 400mm
- E 208mm
- F 225mm
- H 90mm

B3290



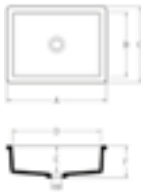
- A 750mm
- B 400mm
- C 450mm
- D 700mm
- E 185mm
- F 200mm
- H 90mm

B3180



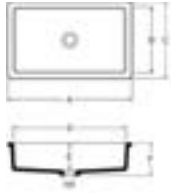
- A 450mm
- B 400mm
- C 450mm
- D 400mm
- E 175mm
- F 190mm
- H 90mm

B3150



- A 427mm
- B 278mm
- C 327mm
- D 378mm
- E 116mm
- F 138mm
- H 45mm

B3190

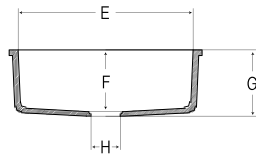
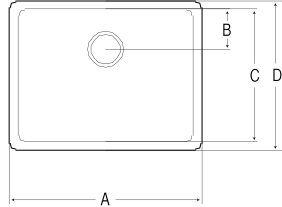


- A 524mm
- B 274mm
- C 327mm
- D 474mm
- E 116mm
- F 138mm
- H 45mm

BOWLS (BASINS)

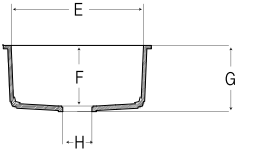
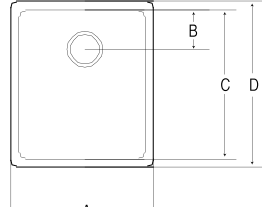
NEW KITCHEN / UTILITY SINKS

B1212



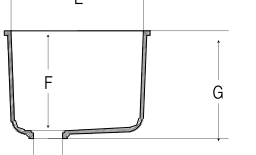
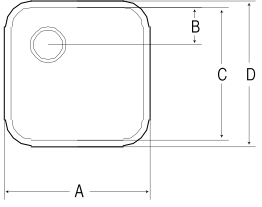
- A 581mm
- B 122mm
- C 400mm
- D 451mm
- E 530mm
- F 185mm
- G 200mm
- H 90mm

B1177



- A 450mm
- B 120mm
- C 450mm
- D 500mm
- E 400mm
- F 185mm
- G 200mm
- H 90mm

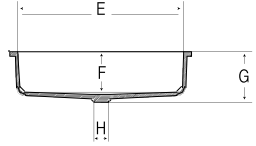
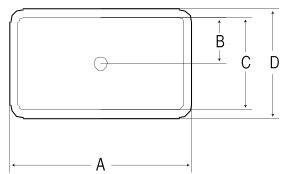
B1160



- A 440mm
- B 112mm
- C 400mm
- D 440mm
- E 400mm
- F 300mm
- G 325mm
- H 90mm

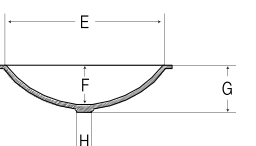
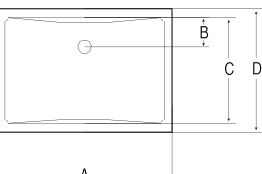
NEW BOWLS (BASINS)

B3200



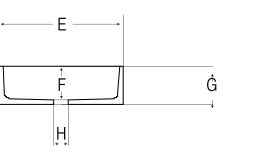
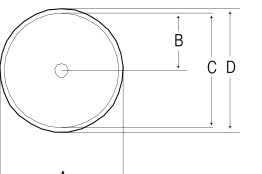
- A 550mm
- B 140mm
- C 280mm
- D 330mm
- E 500mm
- F 120mm
- G 140mm
- H 44mm

B3192



- A 530mm
- B 89mm
- C 320mm
- D 370mm
- E 480mm
- F 121mm
- G 141mm
- H 44mm

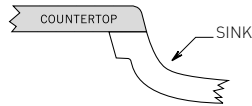
A3148



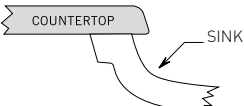
- A 376mm
- B 175mm
- C 35mm
- D 376mm
- E 350mm
- F 97mm
- G 115mm
- H 44mm

MOUNTING OPTIONS

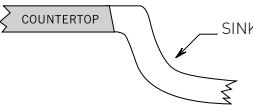
Seam mount



Under mount



Angled mount





## PRODUCT

### Information

STARON® SHEET DIMENSION

STARON GROUP	Thickness	Width	Length
	mm	mm	mm
Solid, Sanded, Aspen, Metallic	6	760	2,500
	12	760	3,680
Solid, Sanded, Aspen, Metallic, Pebble, Eclipse, Stucco, Tempest Stella, Quarry, Supreme, Premiere	12	760	3,680

TREATMENT & CARE

Staron® surfaces offers you an easy-care, durable material that can be cleaned, maintained or repaired with little effort. The 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. To get more info about Staron maintenance instructions, please visit our website.

STARON® CERTIFICATION



STARON® -10YEAR LIMITED WARRANTY

The -10year warranty applies to Staron® products that have been installed in an interior, commercial-use or residential application. For more details, please consult with your Staron® products distributor, or visit [www.staron.com](http://www.staron.com)

## CHEMICAL

### Testing Results

We conducted chemical tests on various surface contaminations prone to exist. These contaminants were dropped onto the surface and covered with glass plates for 16 hours. Surfaces of these areas were then scrubbed with damp pads and detergent then tested for the results.

Contaninments		
- Acetic acid [%10]	- Soapless detergents	- Hydrochloric acid [%37 ,30 ,20]
- Ammonia	- Sodium hydroxide solution (5, 10, 25, 40%)	- Iodine [%1]
- Amyl acetate	- Sodium sulfate	- Lemon juice
- Ball point pen	- Sugar (sucrose)	- Mercurochrome [%2]
- Bleach (household type)	- Sulfuric acid [%60 ,33 ,25]	- Methyl ethyl ketone
- B4- body conditioner	- Tetrahydrofuran	- Methyl red [%1]
- Carbon disulfide	- Tomato juice	- Mustard
- Citric acid [%10]	- Uric acid	- Naphthalene
- Cigarette (nicotine and tar)	- Washable inks	- Olive oil
- Cooking oils	- Xylene	- Perchloric acid
- Cupra ammonia	- Acetone	- Shoe polish
- Ethanol	- Ammonium hydroxide [%28 ,5]	- Sodium bisulfate
- Ethyl ether	- Amyl alcohol	- Soy sauce
- Gasoline	- Benzene	- Sulfuric acid [%60 ,33 ,25]
- Grape juice	- Blood	- Tea
- Household soaps	- Butyl alcohol	- Toluene
- Hydrogen peroxide	- Carbon tetrachloride	- Urea [%6]
- Ketchup	- Calcium thiocyanate [%78]	- Vinegar
- Lipstick	- Coffee	- Wine
- Methanol	- Cottonseed oil	- Zinc chloride
- Methyl orange [%1]	- Dishwashing liquid/powders	
- Mineral oil	- Ethyl acetate	
- Nail polish	- Formaldehde	
- N-hexane	- Gentian violet	
- Pencil lead	- Hair dyes	
- Permanent marker pen		



**Results**

Most pollutants can be easily removed from the surface with damp pad with neutral detergent.

**DISCLAIMER**

The information contained herein is provided by LOTTE CHEMICAL Co., Ltd. for information purposes only and should be used by individuals with technical experience and knowledge in the area. LOTTE CHEMICAL Co., Ltd. does not make any representation or warranties of the usefulness or expected result of the information, and does not assume any responsibility whatsoever related to the use of the information. Exclusion of the implied warranties may not apply in certain jurisdictions.



PERFORMANCE PROPERTIES

Internationally Accredited

US STANDARDS

Property	Test Result	Unit	Test Procedure
Tensile strength	6,000	psi	ASTM D 638
Tensile modulus	600,000	psi	ASTM D 638
Flexural strength	10,000	psi	ASTM D 790
Flexural modulus	1,000,000	psi	ASTM D 790
Elongation	0.5	%	ASTM D 638
Hardness	92 65	Rockwell "M" Scale Barcol impressor	ASTM D 785 ASTM D 2583
Thermal expansion	2.0x1.0°	in/in F°	ASTM D 696
Gloss (60 Gardner)	Between 20-5		NEMA LD3-
Color stability	No change200-	hrs	NEMA LD3-
Stain resistance	Passed Rating 41		ANSIZ 124
Abrasion resistance	Passed		ANSIZ 124
Boiling water surface resistance	No effect		NEMA LD3-
High temperature resistance	No effect		NEMA LD3-
IZON Impact resistance (Notched)	0.28ft.	lbf/in	ASTM D 256
Ball drop 2/1" (12 mm) sheet	144" No failure	w/2/1lb ball	NEMA LD3-
Fungi and Bacterial resistance	No growth		ASTM G 21, G22
Specific gravity Solid colors Patterened colors	1.72 1.69		ASTM D 792
Water absorptionw	0.04 0.11	%,(24 ,"2/1hrs) %,(24 ,"8/1hrs)	ASTM D 570
Flammability Flame spread Smoke density	Class A/Class 1 10 10		UBC 1-8 ASTM E 84 ASTM E 84
Radiant heat resistance	No visual effect		NEMA LD3-
Toxicity	84.4 (Solid color) 81.8 (Patterned color)	g g	Pittsburgh test protocol (LC50 Test)

EU STANDARDS

Property	Test Result	Unit	Test Procedure
Density	1.74	g/cm³	DIN ISO 1183
Flexual modulus	9030	Mpa	DIN EN ISO 178
Flexual strength	64.5	Mpa	DIN EN ISO 178
Elongation at break	0.83	%	DIN EN ISO 178
Compressive strength	181	Mpa	EN ISO 604
Impact resistance (Spring force)	→25	N	DIN EN 2- 438
Impact resistance (Height)	180	cm	DIN EN 2- 438
Surface hardness(Moh's index)	2-3		DIN EN 101
Abrasion behavior ( Lost weight )	0.56	g	ISO 4586 p6
	0.26	%	ISO 4586 p6
Anti-slip properties with 100µm	R9		DIN 5- 51130:2009
Anti-slip properties with 120µm	R9		DIN 5- 51130:2009
Anti-slip properties with 150µm	R9		DIN 5- 51130:2009
Light fastness	→ 6	Blue wool scale	DIN EN 105 -B02
Electrostatic surface resistance	→1x10 <sup>12</sup>	Ω	EN 1-4- 61340
Electrostatic surface resistivity	960x10 <sup>9</sup>	Ω	EN 1-5- 61340
Dimensions stability at 20 °C	Dimension	-0.02	mm
	Gross weight	-0.02	%
Thermal conductivity	0.53 ~ 0.57	W/(m.K)	DIN EN 12664
Thermal resistance	0.083 ~ 0.092	m².K/W	DIN EN 12664
Thermal expansion	3.6 * 10-5	mm/mm°C	ASTM D 696
Fungal and Bacterial resistance	No growth	-	ASTM G 21, G22
Euroclass for reaction to fire	B-s1 d0	-	EN 1- 13501
Fire properties (British)	class0	-	BS 476 part 7 & 6
Fire properties (Germany)	B1	-	DIN 1- 4102
Fire properties (France)	M2	-	NF P 501- 92







LOTTE, a Lifetime Value Creator that enriches the lives of all. LOTTE continues to push further beyond and pursue innovation across the diverse areas of food, retail, tourism and chemicals to continuously offer the most up-to-date lifestyle for its customers. A life of greater convenience and delight paired with a flourishing future of shared growth for all.

This is what awaits us in the future LOTTE aims to create.