

WHITE STONE SOLID SURFACE

Shaping Solid Surface For Interiors



WHITE STONE SOLID SURFACE Shaping Solid Surface For Interiors



MANUFACTURER & FABRICATOR OF SOLID SURFACE



FABRICATOR OF ALL SOLID SURFACE BRANDS



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COMPANY PROFILE

Incorporated since 2013, White Stone WS is a premier Fabricator and Manufacturing company utilizing all brands of solid surfaces in its product offering. The company addresses all phases of construction from commercial, to major production builders, to custom residences in the GCC rnarketplace. WS Surfaces has also developed a line of commercial restroom toilet partitions and counter tops that can be custom manufactured from any specified solid surface. This line is sold throughout the GCC and Asian Countries.

WS focuses on artificial material business, such as Solid Surface Sink, Solid Surface Basin, Solid Surface Sheet, whose rnanufacture base is a modern enterprise integrates with research, development, production, marketing and service in solid surface material, It aims to provide quality acrylic surface material products to an audience ranging in size and scope from the average homeowner to companies that are looking to complete larger scale products.





Our company is located in Umm Al Quwain. WS insists on doing both-win business with each Client and being trustable supplier to each Client, so it always does best to offer good product development, good product quality, good customer service, and try to bring good product to each customer to meet the market.

As well as paying attention to the product, WS also always focuses on quality service, not only at the pre-sale service, also at after-sale service to make sure well service to each customer. "Innovative technology, First Service, Green Environment, Reliability.' is core element of WS management philosophy, which reinforces WS to become the reliable supplier to the market.



WHITE STONE SOLID SURFACE

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MANUFACTURER OF WS sheets

WS Solid surface sheets are manufactured by WS (WHITE STONE SOLID SURFACE) by mixing acrylic epoxide or polyester resin powdered bauxite filter and pigments. The material chemically cures and is heated to 60 °C or more. Cured material is then cut in sheets or shapes and sanded one or both sides using drum sander for high quality sheets. Sometimes the material is brought to 160 °C and cooled, to improve its heat resistance.

WS Acrylic-modified polyester solid surface can be mixed one sheet at a time using different formulations, effects and appearances. Acrylic-modified polyester solid surface can be injected into molds to produce various solid decorative design figures.

WS can also be moulded using dedicated moulds. For example free standing baths are manufactured using a two-part mould tool which creates a cavity for the material to be poured into. Once the mould has been prepared for casting, the material is mixed and degassed in an automated casting machine. It is then injected into the cavity of the mould. Many finishes are available including, gel coated, matte, gloss, metallic and textured.

Property	Standard	Status	Regular Product	HQ-White Stone Product	WHITE STONE SOLID SURFACE SHEET SIZE
Boiling water Resistance	ISSFA SST 8.100	Pass at 100C	Pass at 90	Pass	6mm :::::
Flexural Strength	ASTM D 790	>27.58 MPa	43	53.7	10mm ()) 12mm ())
Flexural modulus	ASTM D 790	>=6895	9200	16800	18mm
Product Hardness "by Barcol Scale	ASTM D2583	5070	57	62	30mm
Flatness	ISSFA SST 4.1-00	<1.6MM	<1.5	<1.5	
Impact resistance	ISSFA SST 6.100	at 1525 mm	Pass at 1300mm	Pass	STANDARD SIZE Length = 3000mm Width = 760mm
High Temperature resistance	ISSFA SST 9 100	Pass at 180	Pass at 110 Pass	Pass	STANDARD SIZE
Bubbles and Suspension	ISSFA SST 7.100	Accept	Accept	Accept	<mark>12mm</mark> Length = 3500mm Width = 760mm
Colour Stability	ISSFA SST 2 100	Accept	Accept	Accept	

TECHNICAL DATA



WHITE STONE SOLID SURFACE Shaping Solid Surface For Interiors

Fabrication

WS being a fabricator too, our fabricator shapes and installs functional and decorative surfaces, usually in buildings. Surface fabrication, as a distinct professional enterprise, usually involves complex tasks of surface shaping. Our fabrication includes router drills, templates, clamps, ovens, suctions cup for grips and table saws. Larger surface fabricators may also use CNC routers. For all but the simplest jobs, surface fabrication usually takes place in the workshop, after which the finished product Is assembled and installed at the work site. Installation of multi-part surfaces, such as "L" and "U" shaped countertops, often involves complex work with specialized tools, to create a seamless result.



Applications

WS is used in the following environment;

- Kitchen/Bathroom: kitchen worktops with integrated sink, vanity countertop, bath tub etc.
- · Hospitality/Catering: bars, tables, reception desks etc.
- · Shop Fitting: displays, counters, wall cladding etc.
- · Airports: check-in counters
- Public buildings: displays in museums, facades, meeting tables etc.
- Hospitals: laboratory countertops, decontamination sinks, endoscopy etc.





WHITE STONE SOLID SURFACE Shaping Solid Surface For Interiors

CNC Works

Vanity Countertops

Column & Wall Cladding









Reception Counters

IN CHEST





Kitchen Top







WHITE STONE SOLID SURFACE

Shaping Solid Surface For Interiors

PROJECTS DONE BY WHITE STONE



Emirates pride perfumes Mirdif City center





Mall of Emirates Zeman Awwal Flooring



Ahmed Al Maghribi Perfumes



Mall of Emirates Salsa



Zahia City Center Lamore Perfumes



Zahia City Center Harman House Column cladding







WS Sunrise





WHITE STONE SOLID SURFACE

Shaping Solid Surface For Interiors

WHITE STONE VEINES & SHADES

NEW MARBLE SHADE SERIES



WS Sunrise

WS White Onyx

WS Crystal Onyx

WS Oak Carara

anand@gssrtech.com 056 1488635 050 8972753		WHITE STONE SOLID SURFACE Shaping Solid Surface For Interio		
WS 01	WS 02 (Designer White)	WS 03	WS 04	WS 05
WS 06	WS 07	WS 08	WS 09	WS 10
WS 161	WS 162	WS 163	WS 164	WS 165
WS 48	WS 49	WS 50	WS 51	WS 52
WS 53	WS 61	WS 62	WS 63	WS 64
WS 621	WS 81	WS 82	WS 83	WS 84
WS 85	WS 851	WS 90	WS 98	WS 106

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050 8972753



WHITE STONE SOLID SURFACE

Shaping Solid Surface For Interiors







LIST OF PROJECTS

Dubai Airport Makhtoom Airport Sharjah Airport Dubai Air show Hotel Mamzar park Hotel Aloft Hotel Hilton Hotel Saraya Ajman Hotel Bab al shams Aster Hospital Aster clinic NMC Hospital Prime Medical Center American Hospital Medicare Hospital Gems Wellington school Modern English School American School of creative science West Minister School Dubai International school Fitness First GYM Etisalat outlets



SOLID SURFACE

WHITE STONE

Shaping Solid Surface For Interiors



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DUBAI | SHARJAH | ABU DHABHI | AJMAN | UMM AL QUAWAIN | AL AIN | RAS AL KHAIMAH

MIDDLE EAST & AFRICA





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D LOTTE CHEMICA





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.

1 LOTTE CHEMICAL

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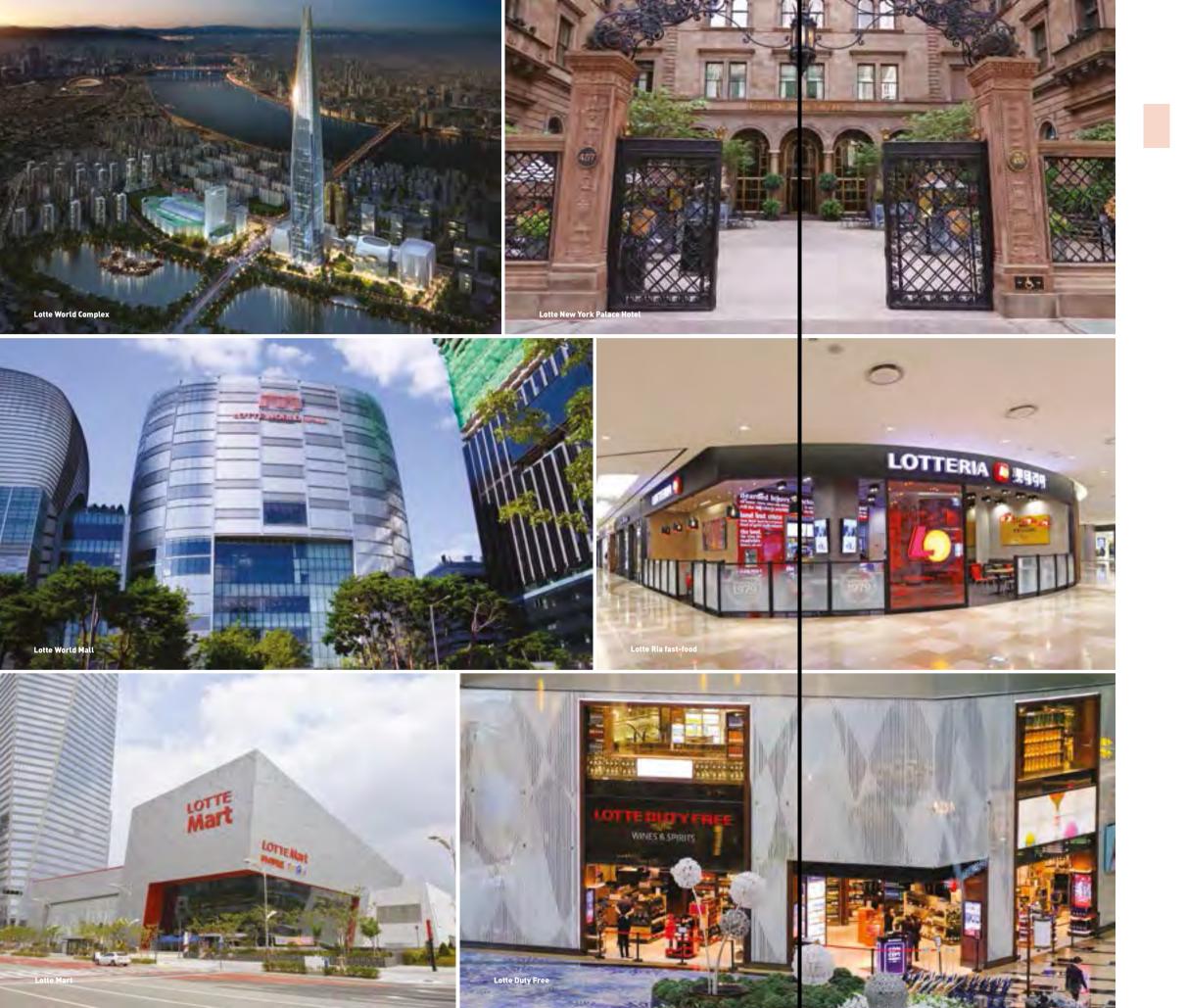
- 56 Sheet Dimension, Treatment & Care, Certification, Warranty
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Lotte World Tower & Mall

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is more that



LOTTE GROUP Lifetime Value Creator

LOTTE's shining history began in 1967 and has successfully expanded through acquisitions and partnerships to become a pioneer group in Korea and globally in various industries such as Chemicals, Construction, Tourism, Retail, Finances and Food.

Today, as LOTTE looks ahead to the next fifty years, we are continuing to build a better world for everyone and continues to challenge itself to realize this ambitious dream by embracing 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

LOTTE's Chemical Business Unit is Korea's representative chemical company founded in 1976 and has been growing into a global top-7 chemical company' by procuring product competitiveness based on its superior R&D capacities and expertise.

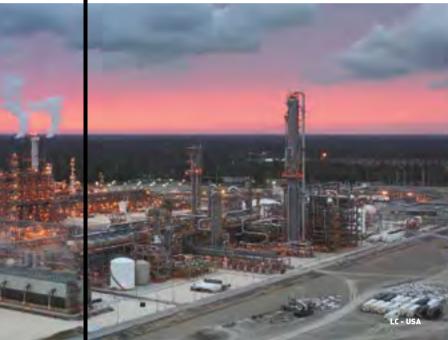
Constructing a diverse business portfolio with total of 26 affiliated companies producing Polymers, Monomers, Basic petrochemical products, Megatrend products, Advanced construction and Interior materials.





	Basic Chemicals		Advanced Materials				
	Petro- chemicals	Polymer	Monomer	Plastics	Interior Materials	Water Treatment Membrane	
Global ranking			7				
	Companies			26			
	Equity			KRW 1	KRW 13,712 billion		
	Sales			KRW 1	KRW 12,223 billion		
	Exported countries			120			
	Employees			10,729			

* As of 2020 business performance.

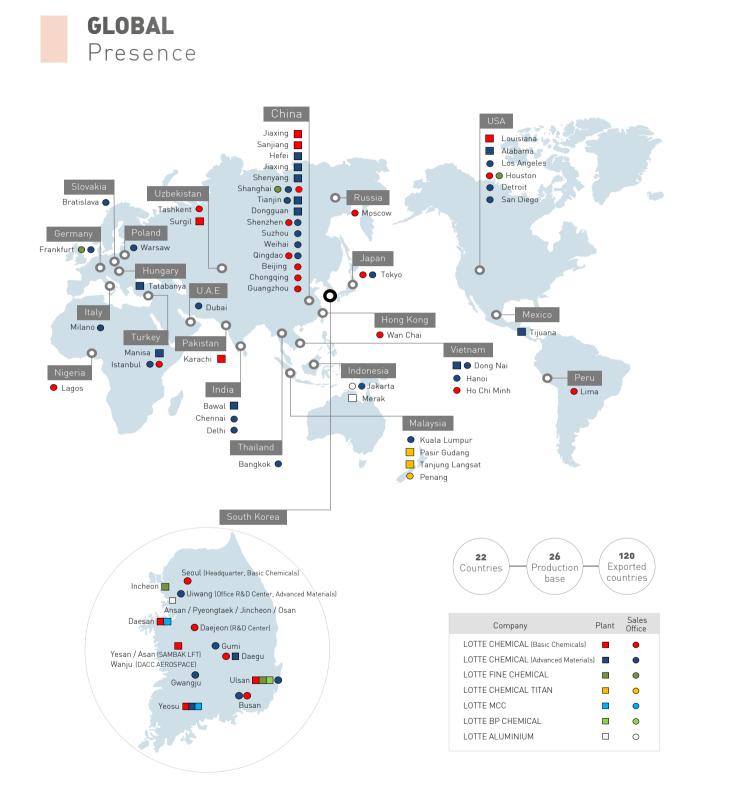












LOTTE CHEMICAL Interior Materials



1992, Company commenced the manufacture of premium acrylic solid surface product STARON[®] brand at Yeosu plant in South Korea with production capacity 970K sheets annually.

2006, Introduced the new Tempest[®] collection which accentuated the world's first translucent jewel-like colors.

2015, Launched Supreme[®] collection featuring a natural rhythmic as the next-generation solid surface choice with beautiful, flowing veined patterns that resemble those found in marble and other natural stone.

2016, The takeover of Samsung Chemical units which gained a foothold to jump into a leading chemical company and expanding globally with high value added product line-ups through the vertical integration in the Petrochemical sector and Interior materials.

2018, Developing evermoin[®] antimicrobial 'more innovation & functional integrations' materials brand from Staron created based on the exclusive technology of LOTTE Chemical.

STARON Interior Materials

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 SOLUTIONS BY STARON

NATURAL

Displaying graceful and delicate patterns, Staron evoke 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, 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 Noir Concrete to create a subtle urban style.





STRETCH YOUR IMAGINATION

To Experience The Possibilities With Staron®

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, ultrahygienic and ultimately durable. The Tempest and Supreme collections offer high-transparent gemstone textures and elegant, refined vein patterns like natural marble.

STARON BENEFITS

RELIABLE PERFORMANCE

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

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INFINITE RANGE OF COLORS

GLOBAL NETWORK

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

joint-lines

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bacteria

Ö

TRANSLUCENCY

- Regional branch offices and product distribution networks worldwide

HYGIENIC SURFACE

• Non-porous surface inhibits growth of mold and

• 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



DIMENSIONAL FLEXIBILITY

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



RELIABLE QUALITY

- Advanced quality control policy and a ommercial 10-year warranty
- Certified eco-friendly by Greenquard and Sientific Certification System

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

COLORS OF STARON®

SUPREME





Downy White SF100

Arctic White VA311











Flux VF113



÷Q-



Ocean View V0171



Dandelion VD175

Rotor Cloud VR322

÷Q:





Loam VL155















Noir Concrete VN180



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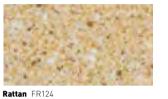
Presto VP159

TEMPEST



Coffee Bean FC158

Quarry Oyster TO310



Twilight FT113



Shell FS115



Radiance(Shimmer) FR148



Mystic FM178



Terrazzo Como FT191

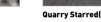


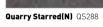
Quarry Ridge QR278

Terrazzo Venezia NT150

Mosaic Dalmatian QD212







Terrazzo Bologna NT970

PEBBLE

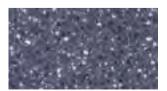
QUARRY



Pebble Moon PM832



Pebble Saratoga PS820



Pebble Blue PB870

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Pebbble Frost PF812



Pebble Chiffon PC842



Pebble Grey PG810



Pebble Swan PS813



Pebble Gold PG840



Pebble Ebony PE814



Pebble Boulder PB852



Pebble Terrain PT857



Sanded Sahara SS440



Sanded Clay SC475

Sanded Chestnut SC457







Aspen Iceberg AI612



Aspen Mine AM633

SANDED





Sanded Birch SB412

Sanded W-Pepper WP410





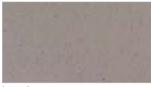




Aspen Alder AA625







Aspen Concrete AC629



Aspen Brown AB632











-00-



Sanded Grey SG420





Sanded Gold Dust SG441



Sanded Taupe ST486



Sanded Vermillion SV430

-00-



Sanded Onyx S0423

METALLIC









Metallic Galaxy EG595

SOLID Pearl SP011 Dazzling White SD001 -**`\$**- -**`\$**-Bright White BW010 0 0 Quasar White SQ019 -œ Natural SV041 Ivory SI040 Fog SF020 Infinity IF188 Ø Serene SS023 Steel ST023 Iris SI056 Bliss SB022 California Poppy(N) SC052 Oasis SOO64 Sunflower(N) SS042 Univers(N) SU053



Forest SF061

Piano Black GP790

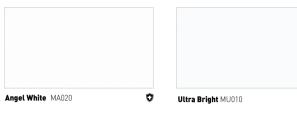


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Printed representation of colors may vary from actual samples. Please review actual sample prior to selection. To view new colors in greater detail, please visit www.staron.com

EVERMOIN (Antimicrobial)









Granville MG030



SUPREME Intimate Moments

Translucent / Mystical / Organic Pattern

The upgraded Supreme III from Staron[®] is inspired by marble that have unexpected movements and cracks of nature formed by long-enduring harsh natural conditions. The vein conveys 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.

Enjoy our three new fabulous decors in the Supreme III series; Arctic White with marble-like veins on subtle white. Rotor Cloud that stands out with the harmony of tinted grey and bold white veins. Latte Cream like the dawn of winter, laid down onto the color of the vast lands.







Rotor Cloud VR322



Rotor Cloud VR322





Downy White SF100



Downy Dove SP105



Evermoin Granville MG030





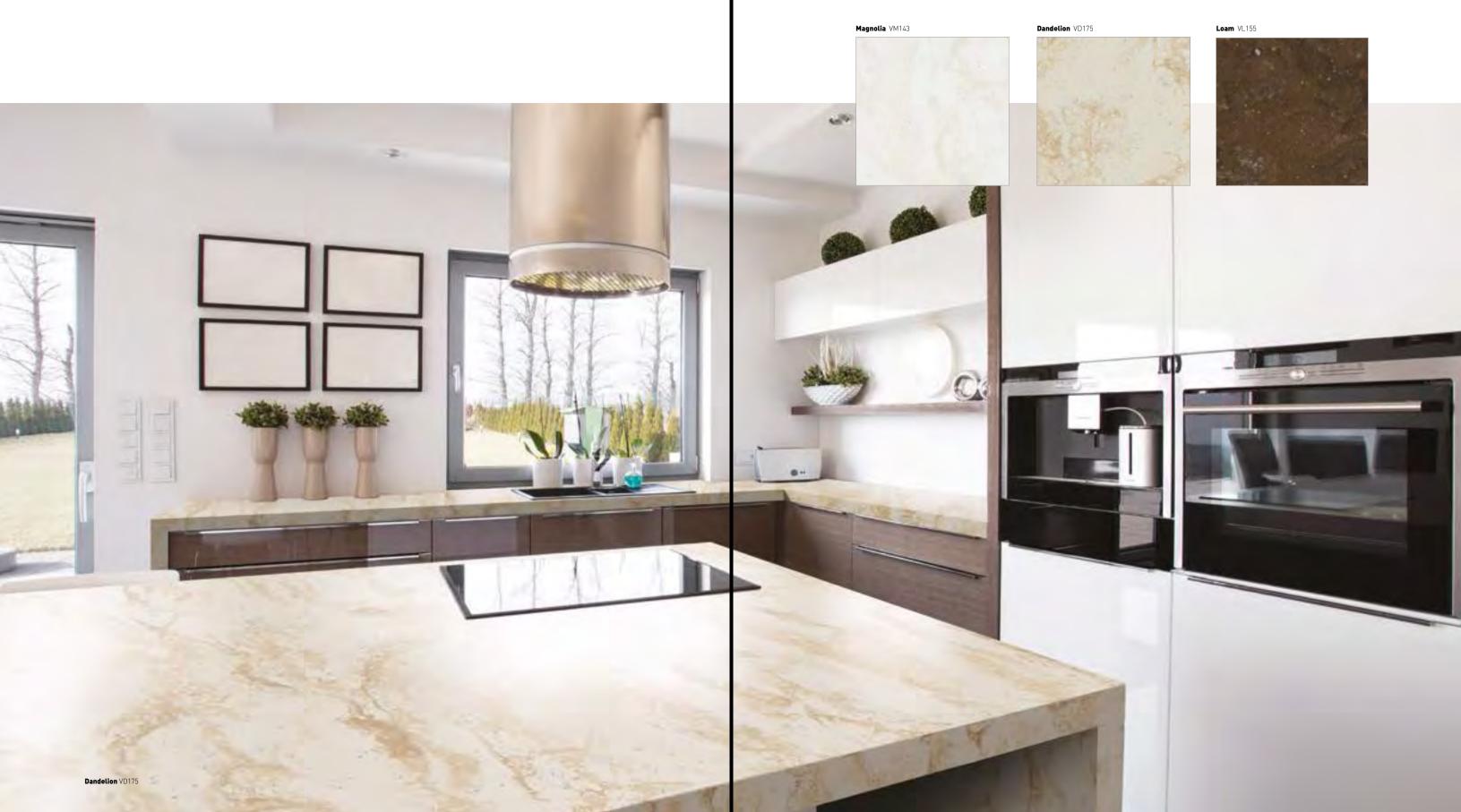
Cotton White VC110



Morning Sky VM114



Urban Grey VU127













Beige Granite VB172



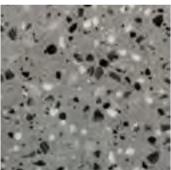
Ocean View V0171



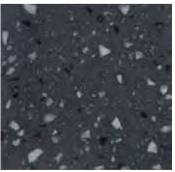
TERRAZZO Designed With Modern Living

Introducing the Terrazzo Collection, a new addition to the Staron portfolio. Featuring contrasting flecks, these new Terrazzo shades offer homeowners and interior designers the authentic look of Terrazzo and the exceptional qualities of Staron. An on-trend surface suited to any kind of space. Packed full of contrasting flecks, which run through the entire thickness of the material, the new design combines a stunning appearance with a seamless finish.

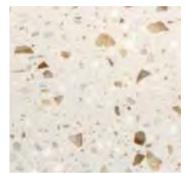




Terrazzo Torino NT981



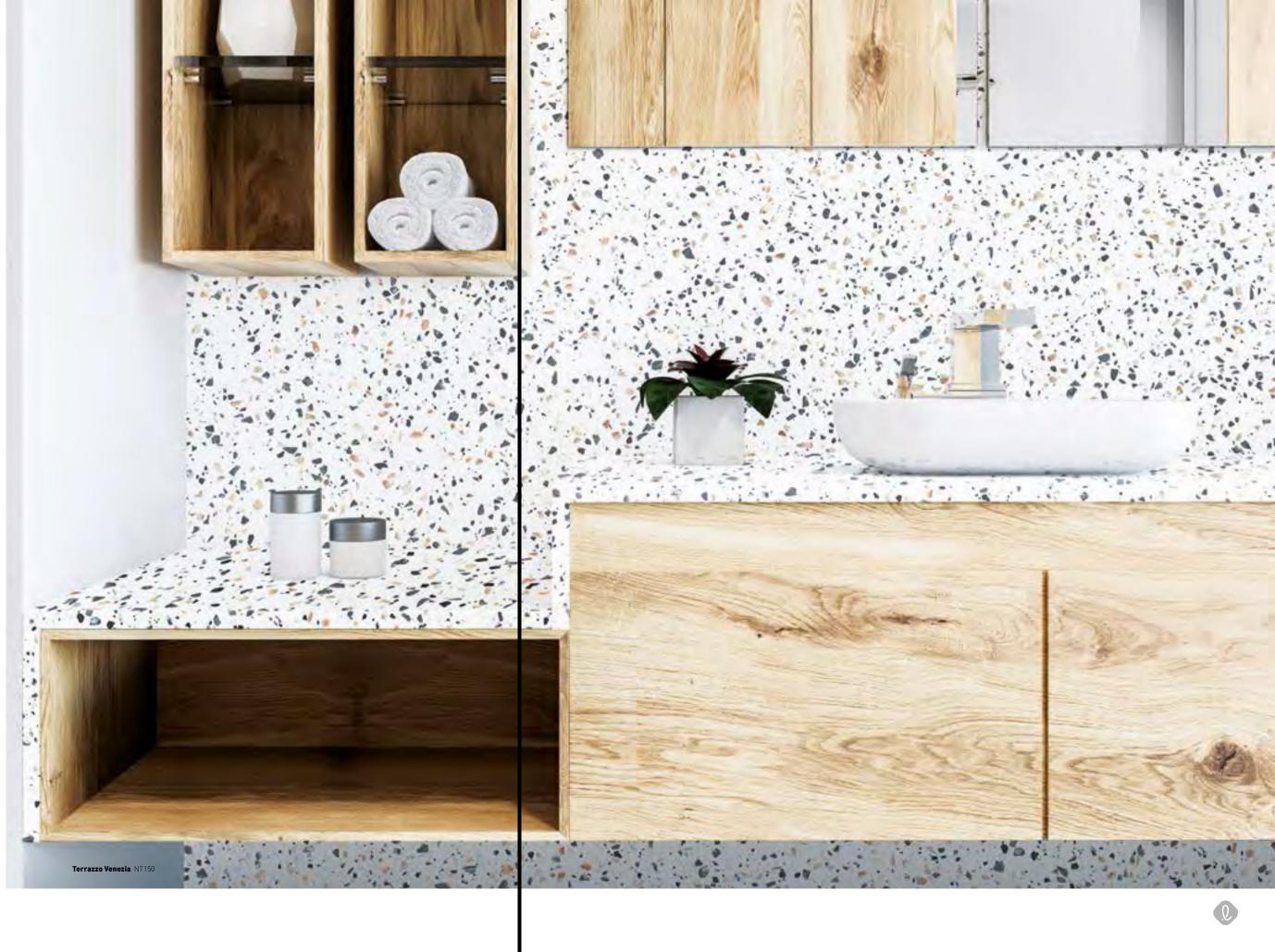
Terrazzo Como FT191



Terrazzo Bologna NT970



Terrazzo Venezia NT150



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

Brings tranquility and comfort to people with its positive color soothing effect. Blue energizes the space and at the same time calms the mind, giving a sense of comfort and relief.

Forest

Is a vivid mint color with a hint of bluish green. It carries a pleasant, modern and outgoing mood. The positive energy of Forest gives life to the space and helps alleviate people's anxiety and depression, since it inherits healing aspects.

Piano Black

Is a vivid black with an elegant, sophisticated and modern mood that can emphasize the sensual simplicity of a space when used within an appropriate color scheme. This is a timeless beauty that allows unlimited design.

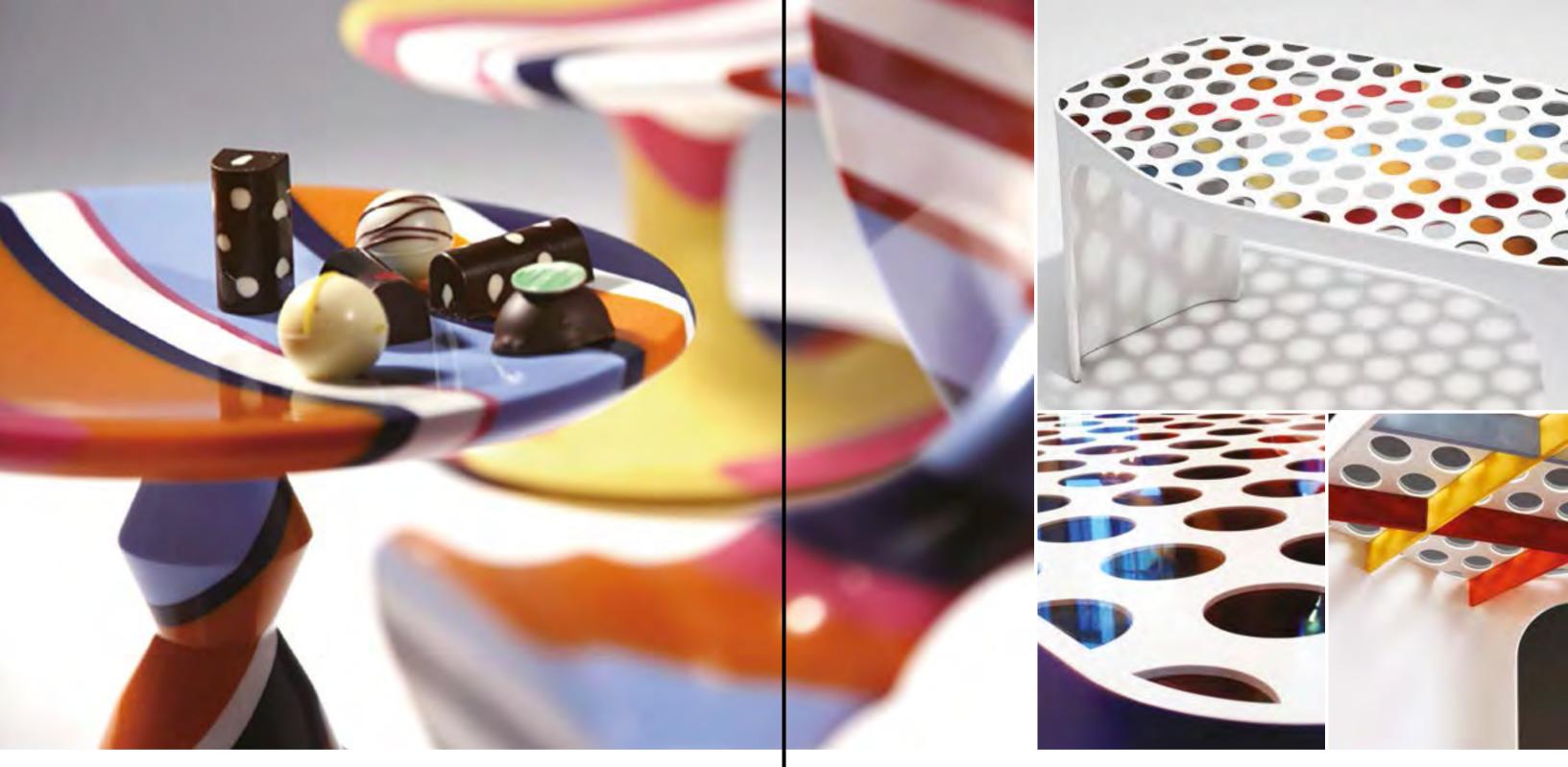
Ultramarine SU067



Forest SF061



Piano Black GP790







Sunflower(N) SS042

Oasis S0064



Univers(N) SU053



Serene SS023



Steel ST023











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®



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	
	⇔EPA	FDA	NSF.	TECCUE CONTROL TO
SIAA	EPA	FDA	NSF	Eco-Friendly
Society of International sustaining growth for Ultra-Hygienic Articles	US Environmental Protection Agency	US Food & Drug Administration	National Sanitation Foundation	SCS Global Services



Ultra Bright MU010

Limpio ML612





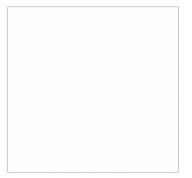




Angel White MA020

Granville MG030

SUPER-FLEX STARON® For Dramatic Curves & Flexibility



Infinity IF188

DRAMATIC CURVES & DESIGN

Minimum Radius: 0mm

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

HIGH ELONGATION

The elongation rate of Staron[®] Super Flex is two times higher than that of existing Staron[®].

Staron[®] Super Flex can be used for architectural and interior applications, such as high-performance wall-cladding or kitchen, bathroom and furniture surfaces.

TIME REDUCTION

Staron[®] Super Flex can be thermoformed at lower temperature and in shorter heating time compared to the thermoforming process of existing Staron[®].

Product	Oven Tempature
Staron Solid (12T)	302°F(150°C)
	284°F(140°C)
Staron Infinity (12T)	302°F (150°C)

Time	Folding limit (Radius)
45~80 min	2" (50mm)
20~30 min 15~30 min	0" (0mm)

CAUTIONS FOR PROCESSING

Please note that variations in heating time and temperature conditions depending on the oven equipment. The table above shows the thermoforming conditions using convection ovens. Thermoforming at temperatures above 180° can lead to decreased performance. Damage on Staron[®] Super Flex sheet can occur at temperatures above 185°. (using convection ovens) Thermoforming time is shorter when using platen ovens.







SINK & BOWL FROM STARON®



Pearl SP011



Quasar White SQ019



KITCHEN / UTILITY SINKS

Ivory SI040

A2311	A1121	A1231
DO.	0.	b
	-	· • •
		1
A 794mm	A 326mm	A 592m
B 110mm	B 356mm	B 422m
C 421mm	C 416mm	C 482m
D 481mm	D 266mm	D 532m
E 348mm	E 165mm	E 187m
F 235mm	F 180mm	F 202m
G 250mm	H 90mm	H 90mr
H 90mm		

A 750mm

B 400mm

C 450mm

D 700mm

E 185mm

F 200mm

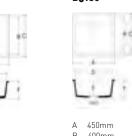
H 90mm

•		0	
	1	4	Ř
1	L	10-	I
	A	592mm	
I	В	422mm	
I	С	482mm	
I	D	532mm	
	E	187mm	
	F	202mm	
	Н	90mm	

A1181

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

90mm B3290 B3180



B 400mm C 450mm D 400mm E 175mm

F 190mm

H 90mm

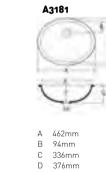


C 356mm D 396mm E 508mm F 156mm G 173mm H 45mm

B3150







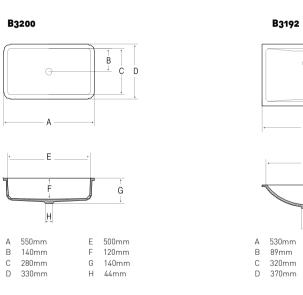
E 422mm F 139mm G 156mm H 45mm

B3190 0



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

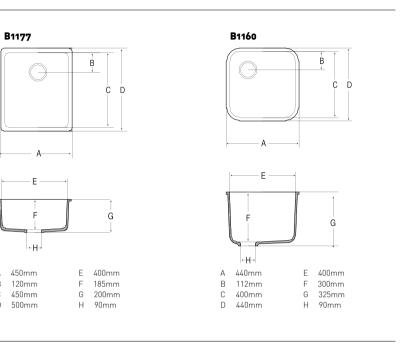
NEW KITCHE	N / UTILITY SINKS	
B1212		
A		-
F H	G	
A 581mm B 122mm C 400mm D 451mm	E 530mm F 185mm G 200mm H 90mm	A B C D
NEW BOWLS	(BASINS)	

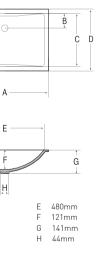


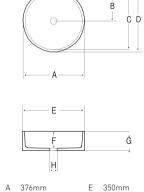




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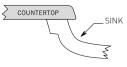




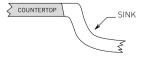


A3148

А	376mm	E	350mn
В	175mm	F	97mm
С	35mm	G	115mn
D	376mm	Н	44mm



Angled mount





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, Pebble,			
Metallic, Quarry, Tempest,	12	760	3,680
Supreme			

TREATMENT & CARE

STARON® surfaces 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. To get more info about Staron maintenance instructions, please visit our website.

STARON[®] CERTIFICATION



STARON[®] 10-YEAR LIMITED WARRANTY

The 10-year warranty applies to Staron, Tempest and Supreme Collection 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

CHEMICAL Testing Results

We conducted chemical tests on various surface contaminations prone to exis. 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 with detergent and tested for the results.

Contaninments

- Acetic acid (10%)
- Ammonia
- Amyl acetate
- Ball point pen
- Bleach (household type)
- B-4 body conditioner
- Carbon disulfide
- Citric acid (10%)
- Cigarette (nicotine and tar)
- Cooking oils
- Cupra ammonia
- Ethanol
- Ethyl ether
- Gasoline
- Grape juice
- Household soaps
- Hydrogen peroxide
- Ketchup
- Lipstick - Methanol
 - Methyl orange (1%)
 - Mineral oil
 - Nail polish
 - N-hexane
 - Pencil lead
 - Permanent marker pen
- Hair dyes

Results

DISCLAIMER

of the information. Exclusion of the implied warranties may not apply in certain jurisdictions.

- Soapless detergents
- Sodium hydroxide solution
- (5, 10, 25, 40%)
- Sodium sulfate
- Sugar (sucrose)
- Sulfuric acid (25, 33, 60%)
- Tetrahydrofuran
- Tomato juice
- Washable inks

- Uric acid

- Xylene

- Acetone

- Benzene

- Blood

- Coffee

- Ammonium hydroxide (5, 28%) - Amyl alcohol
- Butyl alcohol - Carbon tetrachloride - Calcium thiocyanate (78%)
- Cottonseed oil
- Dishwashing liquid/powders
- Ethyl acetate
- Formaldehde
- Gentian violet
- Most pollutants can be easily removed from the surface with damp pad with neutral detergent.
- 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

- Hydrochloric acid (20, 30, 37%)
- lodine (1%)
- Lemon juice
- Mercurochrome (2%)
- Methyl ethyl ketone
- Methyl red (1%)
- Mustard
- Naphthalene
- Olive oil
- Perchloric acid
- Shoe polish - Sodium bisulfate
- Soy sauce
- Sulfuric acid (25, 33, 60%)
- Tea
- Toluene
- Urea (6%)
- Vinegar
- Wine
- Zinc chloride

PERFORMANCE Properties

EU 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 ⁻⁵	in∕in F⁰	ASTM D 696
Gloss (60 Gardner)	Between 5-20		NEMA LD-3
Color stability	No change-200	hrs	NEMA LD-3
Stain resistance	Passed Rating 41		ANSIZ 124
Abrasion resistance	Passed		ANSIZ 124
Boiling water surface resistance	No effect		NEMA LD-3
High temperature resistance	No effect		NEMA LD-3
IZON Impact resistance (Notched)	0.28ft.	lbf/in	ASTM D 256
Ball drop 1/2" (12 mm) sheet	144" No failure	w/1/2lb ball	NEMA LD-3
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	%,(1/2", 24hrs) %,(1/8", 24hrs)	ASTM D 570
Flammability Flame spread Smoke density	Class A/Class 1 10 10		UBC 8-1 ASTM E 84 ASTM E 84
Radiant heat resistance	No visual effect		NEMA LD-3
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	Мра	DIN EN ISO 178
Flexual strength		64.5	Мра	DIN EN ISO 178
Elongation at break		0.83	%	DIN EN ISO 178
Compressive strength		181	Мра	EN ISO 604
Impact resistance (Spring force)		→25	Ν	DIN EN 438 -2
Impact resistance (Height)		180	cm	DIN EN 438 -2
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 51130:2009 -5
Anti-slip properties with	120µm	R9		DIN 51130:2009 -5
Anti-slip properties with 150µm		R9		DIN 51130:2009 -5
Light fastness		\rightarrow 6	Blue wool scale	DIN EN 105 -B02
Electrostatic surface resistance		→1x10 ¹²	Ω	EN 61340 -4-1
Electrostatic surface res	istivity	960x10°	Ω	EN 61340 -5-1
Dimensions stability	Dimension	-0.02	mm	DIN ISO 4586 p10
at 20 °C	Gross weight	-0.02	%	Bii 130 4000 pito
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 13501 -1
Fire properties (British)		class0	-	BS 476 part 6 & 7
Fire properties (Germany)		B1	-	DIN 4102 -1
Fire properties (France)		M2	_	NF P 92 -501



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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