





NATURE INSPIRATION

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# KRION<sup>®</sup> PORCELANOSA SOLID SURFACE

KRION<sup>™</sup> is a new generation of solid surface developed by Systempool, a company belonging to Porcelanosa Group. **A material that is warm to the touch with an appearance similar to natural stone, KRION<sup>™</sup> is made of two thirds natural minerals (ATH: alumina trihydrate) and a low percentage of high-resistance resins. This composition ensures exclusive characteristics, such as nil porosity, antibacterial properties without the need for any kind of additive, hardness, resistance, low maintenance and an easy-to-clean surface.**

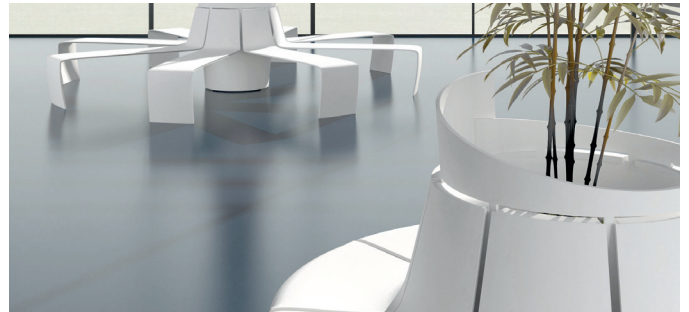
**KRION<sup>™</sup> is worked like wood. This means that the sheets can be cut, joined, and thermoformed to create curved items. KRION<sup>™</sup> can be used in the manufacturing process to make cast objects,** allowing for the creation of designs and projects that would be impossible with other materials.

## SECTORS

All this makes KRION<sup>™</sup> the perfect choice as a material for a wide variety of sectors including:



**HOUSING:** Thanks to its exclusive technical properties and aesthetic qualities, KRION<sup>™</sup> is an ideal solution in homes.



**DESIGN:** KRION<sup>™</sup> can be used to make customized products or in made-to-measure projects.



**RESTAURANT & CATERING:** KRION<sup>™</sup> generates a sensation of warmth and comfort, perfect for restaurants of all kinds.



**COMMERCIAL PREMISES & BUSINESSES:** With its large format, broad design potential and wide selection of colours, KRION<sup>™</sup> can be integrated in any setting, regardless of its shape.

## APPLICATIONS

The KRION<sup>™</sup> range's numerous different series can be used in a wide variety of applications:



PRODUCTS



OUTDOOR WALL  
CLADDING



INDOOR WALL  
CLADDING



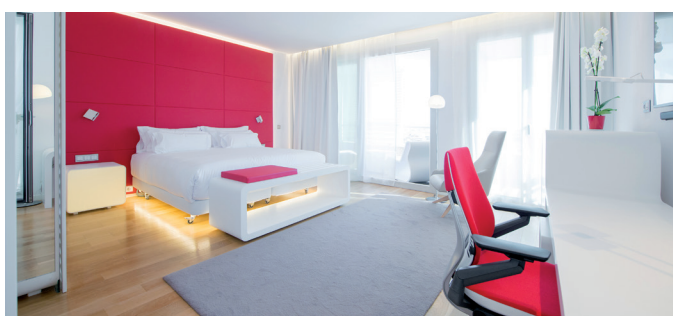
FURNITURE



**TRANSPORT:** Its durability, imperviousness, resistance to the elements and to corrosion, and easy adaptability all make KRION™ an unparalleled choice for use in vessels.



**PUBLIC & GOVERNMENTAL BUILDINGS:** A highly adaptable material, perfect for designing surfaces and products of all kinds or for combining with other materials (ceramic, glass, metal, wood etc.), leading to the creation of settings with a highly distinctive appeal.



**HOTELS:** Hotel facilities of all kinds can be fitted out with KRION™, from the reception area to hotel rooms, restaurants, spas and gymnasiums.



**HEALTHCARE:** A warm-looking, seamless, anti-bacterial material that is hygienic, low on maintenance and easily repairable in situ.



**RETAIL FURNITURE**



**KITCHEN COUNTERTOPS**



**BATHROOM EQUIPMENT**



**SIGNAGE**

## INTRODUCTION

KRION™ sheets are not finished products. They must be sanded and finished off.

Sanding is the final fabrication process, aimed at giving the whole fabricated surface a uniform finish.

A well-sanded finish is essential in ensuring a surface that is easy to clean and care for.

The degree to which a surface is finished off directly influences its visual appearance. By using the right sequence of abrasives and the right machinery, a matt, satin (semi-gloss), glossy or high-gloss finish can be achieved.

The finish given to a surface must coincide with the product's intended use and the chosen colour of the KRION® used to fabricate it.

Dark colours require a satin or glossy finish. They should not be given a matt finish, because it will not bring out their full depth and intensity.

## EQUIPMENT

Generally speaking, random-orbit sanders should be used, using sanding discs with a progressively fine grit, working from a thick grit, to a medium and then a fine one.

These sanders normally come with orbits ranging from 2.5 mm to 8 mm.



**Random-orbit sander;** These sanders move in elliptical fashion, and so no single bit of the abrasive material travels the same path twice. This random movement leads to a better finish, reducing the number of swirl marks that are left. Preferably, the sander should have a speed regulator and vacuum connection, and it should be possible to change the sanding plate.

The bigger the sander's orbit, the more material it will remove but the more scratches it will make. These bigger orbits are suitable for grinding, using a sanding disc of up to P120 or P180. When using grits of P240, P320, P400 etc., a sander with a smaller orbit of 2.5mm to 4 mm should be used.

A sander with a smaller orbit should also be used for dark colours so as to avoid too many scratches, since any imperfections due to bad sanding will be more easily visible on dark colours.



**Belt sander;** This type of sander should not be used, since it works in linear fashion, leaving more marks. A belt sander is only appropriate during the grinding process, using a P80, P100 or P120-grit sanding disc, before going on to finish the sanding process with a random-orbit sander.



**Polisher;** For decorative purposes, KRION™ can be polished to achieve a glossy (polished) surface.

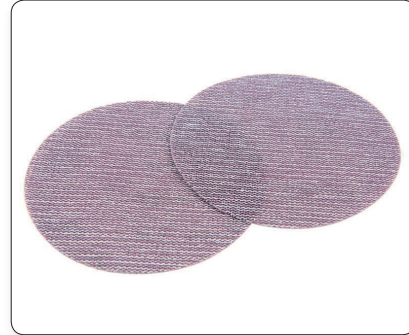
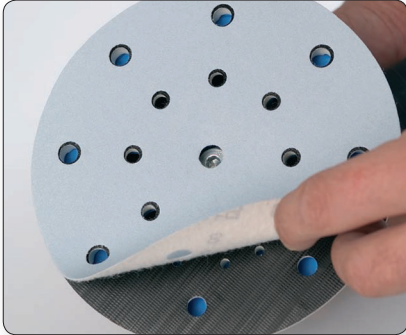
A fine-grit abrasive paste should be used to polish it (approx. 5000 to 11000 grit), applied with a random-orbit sander or, better still, with a polisher, since they are specially designed for this kind of work.

Preferably, polishers with a speed regulator should be used.

## TYPES OF SANDING DISCS (ABRASIVES)

Different types of abrasive materials can be used to sand KRION™. The most common are aluminium oxide and silicon carbide grit on a paper backing.

The sequence of grits that is used can differ, depending on the manufacturer. Never make a big jump from one size grit to another. There should never be a difference of more than 80 between the grit size of one sanding disc and the next. A typical sequence might be P80, P120, P180, P240, P320 and P400 for a matt finish.



There are other types of backing materials for medium or fine-grit abrasives.



**Fibre-backed abrasive discs (like Scotch Brite);** This kind of medium-grit disc will create a satin finish close to either a matt or gloss finish depending on the grit size.

For instance, after sanding progressively up to P400 or P500, a surface can be finished off with an S800 fibre disc to achieve a satin (semi-gloss) appearance.



**Fabric and sponge-backed abrasive discs;** With this kind of medium or fine-grit disc, a typical sequence would be S500, S1000, S2000, S3000 and S4000. The abrasive material on these discs comes on a flexible cotton or polyester fabric or sponge backing.

The finer the abrasive, the shinier the finish. When working with fine abrasives, it is important to reduce the rpm of the sander to prevent the surface from getting too hot.

To achieve a high-gloss shine, polishing paste or cream is needed with a grit size of approximately 5000 to 11000.

It should be applied using a wool or sponge buffing pad and a random-orbit sander or polisher. (Do not forget to reduce the speed of the machine when polishing).

## THE SANDING PROCESS

KRION™ sheets come with a 400-grit wet-sanded factory finish on the top surface protected with plastic film. The underside comes with more or less a 120-grit sanded finish (sanded continuously in one direction with a belt or automatic wide belt sander).

To remove this effect, a random-orbit sander should always be used. This factory-supplied surface should not be left as it is when received.

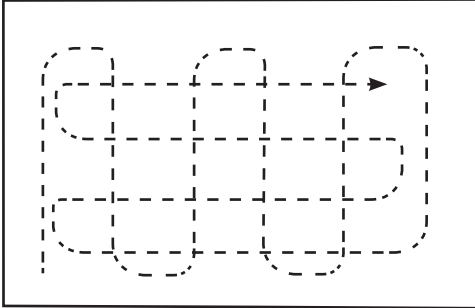
Take care not to exert too much pressure in case the sander or KRION™ surface gets too hot and the surface gets scratched or marked. The finer the sanding disc, the slower the sander should be. When a fine sanding disc is used at too high a speed, the surface can heat up too much and the finish become spoiled.

The first step is to grind any surplus adhesive along the joints and to sand the angles between bonded sheets. This should be done with a hard or semi-hard sanding plate and thick wool sanding pads.

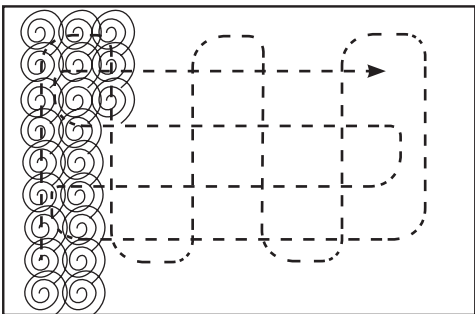
## THE SANDING PROCESS

Bear in mind that this grinding stage can also be done with a small or medium-sized hand milling machine and profile wheels. In this way, P180-grit sanding discs can be used to start the sanding process, without having to begin with bigger grits.

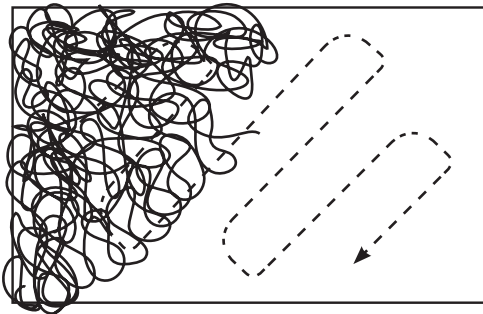
It is very important to vacuum and remove any residual dust during each of the sanding phases. Use sanders with vacuum connections or work in booths with extraction systems.



When sanding, work from top to bottom and left to right in small circular movements, overlapping the circles. (The surface should be sanded like this twice for each grit size). During each sanding phase, any marks or scratches made by the previous sanding disc should be removed. Take your time to sand the surface properly, thus ensuring good end results.



Move the sander in circular movements, working from top to bottom and from left to right, overlapping the circles continuously. Remove any residual dust from the sander and from the surface of the KRION™ after each sanding phase.



When a fine-grit sanding disc is used to achieve a gloss finish, move the sander in random figure-of-eight shapes. This time, do not work from top to bottom or from left to right, but diagonally. Remember to reduce the speed of the sander to prevent the surface from getting too hot.

In the case of dark colours, it is advisable to wet sand the surface during the final stages with P400, P600, S800 or S1000 grit abrasives to ensure a finer finish.

If you have to wet sand the surface, do not use electric tools – use pneumatic sanders.

When you sand, remember:

- Do not exert too much pressure on the sander. The amount of pressure should be uniform at all times.
- Remove any residual powder from the sander and KRION™ surface after each sanding phase.
- Work at a constant speed with each particular grit size.
- Reduce the speed when working with fine-grit abrasives.
- Replace worn sanding discs.
- Check the condition of the sander, its rotational stability, and the condition of the plate. (A worn plate or sander with mechanical problems will make marks on the surface).
- Use a hard or semi-hard plate for grinding the surface, and a soft or semi-soft plate for the finishing process.
- Once any unevenness on the surface and along the adhesive joint have been ground down, a better finish will be achieved by using a 3mm or 4mm random orbit sander.
- Do not wet sand with an electric sander. If you have to wet sand, use pneumatic tools.
- Take your time so as to complete each of the sanding phases properly, thus avoiding any waste of time if the process has to be repeated.



## THE SANDING PROCESS

See the following table for the approximate sequence of abrasives to use, depending on the colour and finish of the surface.

SANDING AND FINISHING OFF KRION™						
Type of finish	Pale colours	Dark colours	Type of finish	Pale colours	Dark colours	
MATT	P120	No recommended	GLOSS	P120		
	P180			P180		
	P240			P240		
	P320			P320		
SATIN	P120	P120		P400		
	P180	P180		500 sponge		
	P240	P240		1000 sponge		
	P320	P320		2000 sponge		
	P400	P400		4000 sponge		
	500 sponge or S800 fibre	1000 sponge or S800 fibre				

## THE APPROPRIATE FINISH FOR EACH COLOUR

KRION™ surfaces can be easily fabricated with tools typically used to work wood or other materials. Nonetheless, it is important to remember that this material is not scratchproof.

In time, it will show signs of wear and tear, although the surface is easy for clients to clean and restore providing that it is treated right.

Clients might ask for a particular surface finish, but one should always be recommended in keeping with the end use of the fabricated KRION™ and its colour.

Signs of wear and tear are more visible on plain dark colours. That is why they are not suitable for work surfaces\*, although they can be used for items of décor.

Krion colours can all be given any final finish: matt, satin (semi-gloss), gloss or high-gloss (polished).

A matt finish is not recommended for plain dark colours, since it will not bring out the full intensity of the colour and stains will be more noticeable. These colours should be given a satin or gloss finish.

Work surfaces\* should be given a matt or satin finish because it makes everyday care of the surface much easier.



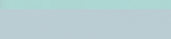
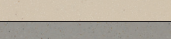

Work surfaces\* with a gloss or polished finish are more fragile and hard to care for. (Warn your clients and recommend a satin or matt finish).

\* Examples of work surfaces: a kitchen or a bathroom countertop; a hotel reception or customer care desk; a shop counter; a bar; a counter in a self-service restaurant or buffet table; a meeting or dining table etc.


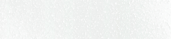



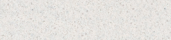

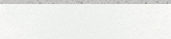
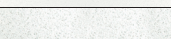







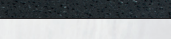
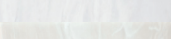






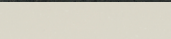
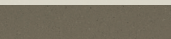
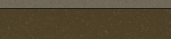

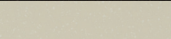
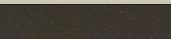
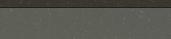
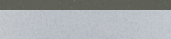
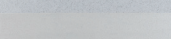
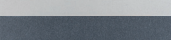
The following table shows the recommended finishes for each KRION™ colour.

KRION™ COLOUR			Type of surface finish		
Series	Colour	Colour code	Matt	Satin	Gloss
SNOW		1100 Snow White	✓	✓	✓
		6101 Frost White	✓	✓	✓
COLORS		6203 Senape	✓	✓	✓
		6502 Pearl	✓	✓	✓
		6501 Cream	✓	✓	✓
		6506 Greggio	✓	✓	✓

## THE SANDING PROCESS

KRION™ COLOUR		Type of surface finish			
Series	Colour	Colour code	Matt	Satin	Gloss
COLORS		6508 Cotto	✓	✓	✓
		6509 Moai	✓	✓	✓
		6703 Santorini Blue	✓	✓	✓
		6902 Light Grey	✓	✓	✓
		6903 Grey	✓	✓	✓
		6908 Scommetto	✓	✓	✓
		6909 Colosseo Grey	✓	✓	✓
COLORS +		6201 Imperial Yellow	✓	✓	✓
		6301 Fruit	✓	✓	✓
		6401 Red Fire	✗	✓	✓
		6403 Candy	✓	✓	✓
		6405 Happy Red	✓	✓	✓
		6504 Mocha	✓	✓	✓
		6505 Taupe	✓	✓	✓
		6601 Fall Green	✓	✓	✓
		6701 Blue Sky	✓	✓	✓
		6702 Atlantic Blue	✗	✓	✓
		6704 Navy Blue	✗	✓	✓
		6901 Black Metal	✗	✓	✓
		6904 Bright	✓	✓	✓
		6905 Ash Grey	✓	✓	✓
		6906 Dark Grey	✓	✓	✓
	6907 Deep Purple	✗	✓	✓	
LIGHT		4102 Extreme White Light	✓	✓	✓
		4201 Yellow light	✓	✓	✓
		4401 Pink Light	✓	✓	✓
		4601 Green Light	✓	✓	✓
		4701 Blue light	✓	✓	✓
NATURE		0101 White Nature	✓	✓	✓
		0102 Clear Nature	✓	✓	✓
		0103 Day Nature	✓	✓	✓
		0501 Dune Nature	✓	✓	✓
		0502 Camel Nature	✓	✓	✓
		0503 Earth Nature	✓	✓	✓
		0504 Marfil Nature	✓	✓	✓
		0901 Grey Nature	✓	✓	✓
		0902 Ash Nature	✓	✓	✓
		0903 Night Nature	✗	✓	✓
STAR		7103 White Star	✗	✓	✓
		7201 Golden Star	✗	✓	✓
		7501 Greggio Star	✗	✓	✓
		7502 Moai Star	✗	✓	✓
		7701 Atlantic Blue Star	✗	✓	✓
		7903 Deep Purple Star	✗	✓	✓
		7904 Black Star	✗	✓	✓
		7905 Grey Star	✗	✓	✓

## THE SANDING PROCESS

KRION™ COLOUR			Type of surface finish		
Series	Colour	Colour code	Matt	Satin	Gloss
ROYAL		8101 Crystal White	✓	✓	✓
		8103 Iceberg White	✓	✓	✓
		8901 Crystal Black	✗	✓	✓
		8904 Black Mirror	✗	✓	✓
ROYAL +		9101 Cristal White +	✓	✓	✓
		9102 Polar Stone	✓	✓	✓
		9103 Bright Rock	✓	✓	✓
		9104 White Concrete	✓	✓	✓
		9105 Elegant White	✓	✓	✓
		9505 Cream Concrete	✓	✓	✓
		9506 Mocha Concrete	✓	✓	✓
		9507 Taupe Concrete	✗	✓	✓
		9903 Deep Granite	✓	✓	✓
		9904 Bright Concrete	✓	✓	✓
LUXURY		L101. Carrara Soft	✓	✓	✓
		L102. Nacar	✓	✓	✓
		L501 Pompei	✓	✓	✓
		L503 Siracusa	✓	✓	✓
		L901 Segesta	✓	✓	✓
		L902 Erice	✓	✓	✓
		L903. Grey Cement	✗	✓	✓
		A101 Asteroïd White	✓	✓	✓
ASTEROID		A501 Asteroid Mocha	✓	✓	✓
		A502 Asteroid Brown	✗	✓	✓
		A503 Asteroid Dark	✗	✓	✓
		A504 Asteroid Cream	✓	✓	✓
		A505 Asteroid Taupe	✗	✓	✓
		A901 Asteroid Grey	✓	✓	✓
TERRAZZO		T101. Bianco Classico	✓	✓	✓
		T102. Marmo Bianco	✓	✓	✓
		T901. Grafite Classico	✓	✓	✓
		T902. Pietra	✓	✓	✓
		T903. Concrete	✓	✓	✓
		T904. Grigio Classico	✓	✓	✓



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SYSTEMPOOL, S.A. - Ctra. Villarreal-Puebla de Arenoso, Km 1 / P.O. Box 372 - 12.540 VILLARREAL (Castellón) - SPAIN  
Tel:+34 964 50 64 64 - Fax Nac. 964 50 64 81 - Fax Exp. +34 964 50 64 80 / E-mail: [krion@krion.com](mailto:krion@krion.com)  
[www.krion.com](http://www.krion.com)