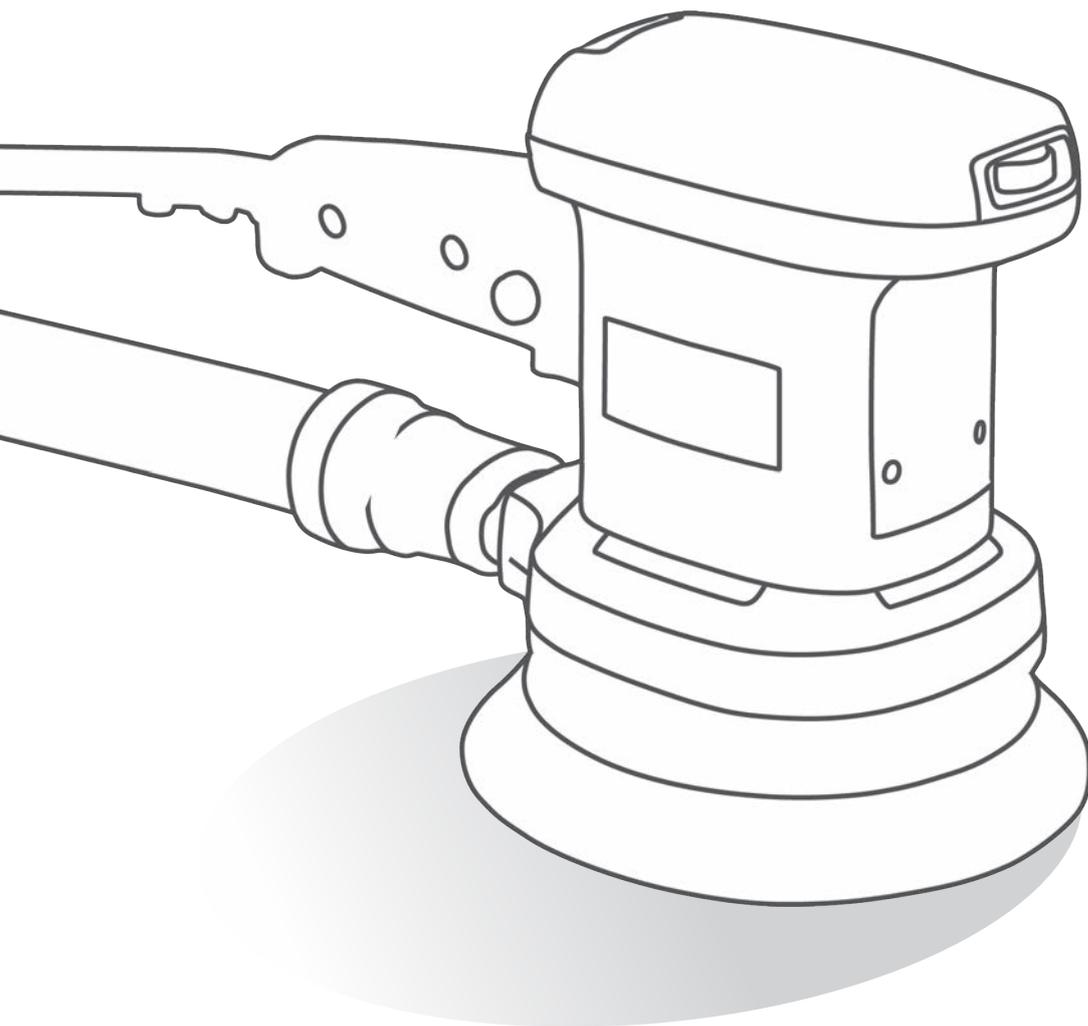
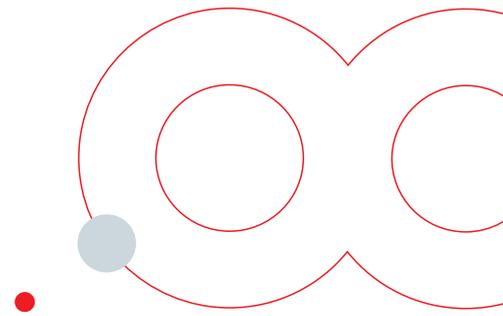


# PROCESSING INSTRUCTIONS



# Processing Instructions

## WORKSHOP EQUIPMENT, TOOLS AND CONDITIONS FOR KERROCK PROCESSING

- Squaring saw 3kW with an appropriate blade of the circular saw\*
- Spindle moulder 3kW with feeder
- Benchtop milling machine or CNC milling machine 1.5kW
- Handheld electrical router 800W for easier milling works and 1,600W for bigger cuts and profile milling\*
- Handheld electrical circular saw 1,200–2,300W
- Handheld electric jigsaw 450W
- Band saw 3kW
- Stable grinding machine for grinding wood
- Handheld electric vibration grinder 280–550W\*
- Handheld electrical rotation eccentric grinding machine 250–450W
- Handheld electric belt grinder 1,000W
- Handheld electric drilling machine 800W
- Stable drilling machine 1,500W
- Mobile vacuum cleaner 350–1,200W
- Furnace for heat treatment of Kerrock (up to 180°C)
- Joiner's clamps 100mm or fixing clamps 50mm\*
- Gun for application of elastic silicone or polyurethane glue\*
- Kit for preparation and application of Kerrock glue\*

/\*/ - required machines and kit for Kerrock processing

## WORKING CONDITIONS FOR KERROCK PROCESSING

Temperature in the workshop must be at least 18°C.

Before processing, keep the sheets in a room with an ambient temperature of approx. 18°C for at least 12 hours.

Working areas must be well lit.

There should be little or no dust and waste in the workshop where Kerrock gluing is taking place.

Make sure dust and cuttings are well vacuumed.

Working surfaces for gluing Kerrock should be completely flat.

Make sure Kerrock sheets are well protected from any damage during storage.

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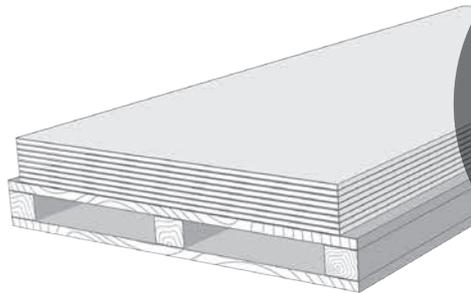
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# 1. STORAGE AND TRANSPORT

## 1.1. Transport of Kerrock Sheets and Sinks

Kerrock sheets are usually transported on pallets. Kerrock pallets must be unloaded with a fork lift or other lifting devices which provides safe transport of the following loads:

	Kerrock sheet		Empty pallet		10 Kerrock sheets + pallet	
Width (mm)	760	1,350	800	1,400	760	1,350
Weight (kg)	56	100	30	50	590	1,050
Length (mm)	3,600	3,600	3,800		3,800	
Thickness (mm)	12	12	100		220	



### ADVICE

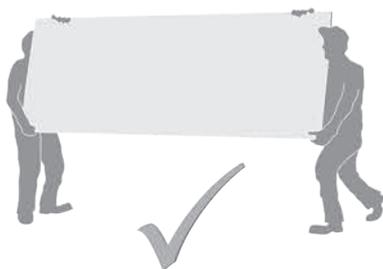
Forklift fork must be at least 15 cm long and the maximum distance between them.

Should no lifting device be available, Kerrock sheets can also be unloaded manually. If so, it is of the utmost importance to observe the instructions intended for your safety:

- transport only one sheet at a time;
- hold the sheet at its edge;
- transport the sheet vertically;
- always use protective gloves for heavy works and appropriate safety footwear;
- it takes two people to perform the work.

### ADVICE

Extreme temperatures affect the product. Be careful when handling the sheets at a temperature below 10°C.



The sheets must be transported individually in a vertical position, where one hand serves as support and the other for control. It is recommended to use vacuum accessories for transporting heavy loads.

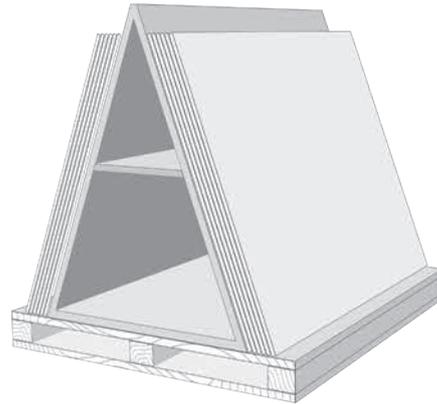
## 1.2. Storage of Kerrock Sheets and Sinks

There are two ways to store Kerrock sheets that prevent bending and tilting. It is recommended to store Kerrock sheets at a temperature between 15°C and 23°C, in a dry and well ventilated indoor areas. Make sure the product is not exposed to moisture during storage.

- Kerrock sheets must be stored in a horizontal position and evenly arranged, as shown (Figure 2, Page 5).
- Kerrock sheets can also be kept in a vertical position (vertical storage). As shown (on the Figure below), the sheets must be stored on vertical supports, where the lower edge of a sheet rests on a flat floor.

### NOTE

Due to easy access, Kerrock sheets must be stored so that their batch number and colour are visibly shown.



### ADVICE

In order to prevent bending and tilting special attention must be given to storage of Kerrock sheets.

It is essential to organise the storage system to enable easy access, management and identification of goods.

Exposure to moisture and indirect sun light during storage can damage the sheets.

Handling Kerrock sinks and washbowls carefully, as stated in packaging instructions, is of utmost importance. Packaging of Kerrock sinks and washbowls guarantees maximum protection. Nevertheless, extreme care is required.

### ADVICE

Kerrock sinks and washbasins should not be stored more than 6 boxes high.

Bear in mind! In order to reduce the possibility of injuries, do not lower, press or mount heavy loads on the top.

## 2. QUALITY REVIEW

### 2.1. Quality Review of Kerrock Sheets

The goal of Kolpa, d.d., is to offer producers only the highest quality materials, which will satisfy customer's demands. In order to ensure compliance with our strict quality standards, every individual sheet is thoroughly checked and examined.

Nevertheless, it is the responsibility of a user to examine every sheet for possible faults and check its colour.

#### ADVICE

If, after thorough examination of a Kerrock sheet, you find any faults, which would significantly lengthen the duration of production, we kindly ask you to immediately inform the distributor about the problem.

Your Kerrock distributor will answer all your questions and provide you with appropriate assistance.

Kolpa, d.d., will replace any materials which do not conform with product specifications upon delivery. Cut sheets are not subject to complaints. Likewise, Kolpa, d.d., does not assume responsibility for any changes which might arise due to the use of damaged materials.

NOTE

Table 2.1-A shows some provisions of standards which are useful in control of Kerrock sheets (upon delivery).

Control Standards	Technical Requirements
Mechanical Damage	None.
Difference in colour (from sheet to sheet)	Inspection of colour matching between individual sheets is not only required, but also highly recommended. Sheets of different batches may deviate in colour.
Difference in colour (on one sheet only)	Before cutting the sheet, it is required to check the homogeneity of colour throughout the surface of the sheet and then orient the sheet appropriately.
Bending	Less than 1.8mm
Holes	They are allowed on the back side of the sheet: - dimensions of permitted holes: 2mm deep, diameter of 6mm; - 10 holes maximum with a diameter of 1 to 6mm on the sheet. No holes are permitted on 3mm thick sheets.
Foreign bodies and contrast dots	Contrast dots and impurities are allowed, and namely: - total surface of dots should not exceed $1\text{mm}^2/\text{m}^2$ or approximately 5 dots with a diameter of 0.5mm per $\text{m}^2$ on a sheet. A maximum 3 dots or foreign bodies are allowed per $\text{dm}^2$ of a sheet.
Edges	Bruises are allowed within tolerance measures of declared dimensions.
Hardness	Hardness measured in accordance with ASTM D2 583 (Barcol 934 1) is between 58 and 65.
Dimensions	The following deviations from declared dimensions are allowed: - thickness: $\pm 0.5\text{mm}$ ; - for 3mm thick sheets: $\pm 0.25\text{mm}$ ; - length: $-8\text{mm}$ ; $+10\text{mm}$ ; - width: $-4\text{mm}$ ; $+10\text{mm}$ .
Curvature	Permitted curvature is 2mm/per metre of sheet. The gap between the horizontal base and the laid sheet is measured.

**NOTE**

Please examine the Kerrock sheets, washbasins and sinks or the final product carefully upon receiving them. Kolpa, d.d., will not consider complaints about any parts which have been damaged during use or as a result of use of damaged materials due to failure to comply with the instructions for processing, use and maintenance.

## 2.2. Quality Review of Kerrock Washbowls and Sinks

Table 2.2-A shows some provisions of standards which are useful in quality review after the receipt of Kerrock washbowls or washbasins (upon delivery).

Control Standards	Technical Requirements
Mechanical Damage	None.
Colour ordered	Check if the supplied goods are appropriate.
Right size	Be careful as there are many sinks and washbasins, which have a similar design. Please, check whether the dimensions are appropriate.
Accessories	Make sure all accessories are included in the shipment.
Outflows	Check proper location and setting.
Foreign bodies and contrast dots	Contrast dots and impurities are allowed, and namely: - 2 dots/dm <sup>2</sup> or up to 5 dots or impurities per product in the size of up to 0.5mm.
Rough surface on the back side of a product	The back side of a product can have a rough surface. A crack up to 10cm long, up to 2cm wide, and up to 2mm deep is also allowed.
Difference in colour (form and sheet)	Colour match with form and sheet is not guaranteed.

**NOTE**

Please examine the Kerrock sheets, washbasins and sinks or the final product carefully upon receiving them. Kolpa, d.d., will not consider complaints about any parts which have been damaged during use or as a result of use of damaged materials due to failure to comply with the instructions for processing, use and maintenance.

## 3. GLUE

### 3.1. Product Description

Kerrock glue is a two-component adhesive composed of modified methyl-methacrylate resin (component A) and dibenzoyl-peroxide-a hardener (component B). Kerrock glue guarantees excellent gluing of Kerrock sheets and is available in all colours of Kerrock sheets, which results in almost invisible joints, if gluing instructions are duly observed. Kerrock glue is thermally conductive and UV-resistant, resistant to external influences and water.

### 3.2. Types of Glues with regard to Packaging

Kerrock glue is packed in two ways:

- a. in plastic bottles
- b. in cartridge dispensers



#### a. Kerrock Glue in Plastic Bottle

With regard to the quantity of adhesive there are three sets of Kerrock glue in plastic bottle:

1. Mini Kerrock glue set 0.20kg (200g of glue);
2. Middle Kerrock glue set 0.50kg (500g of glue);
3. Big Kerrock glue set 1.0kg (1,000g of glue).

An individual set of Kerrock glue in plastic bottle is composed of a plastic bottle (size with regard to the type of set) with a cap, which contains component A, Unguator jar (100ml), Unguator applicator, injection syringe (5 ml or 10 ml), which contains component B, and Kerrock stick for mixing glue. All together is packed in an appropriately sized cardboard box.

#### b. Kerrock Glue in Cartridge Dispenser

With regard to the quantity of adhesive there are two sets of Kerrock glue in cartridge dispenser:

- a) Kerrock glue cartridge dispenser 250ml
- b) Kerrock glue cartridge dispenser 50ml

An individual set of cartridge dispensers is composed of two-component cartridge with a ratio of 10:1 for component A against component B. Every cartridge dispenser set includes a mixer. Cartridges lie horizontally in a cardboard box.

### 3.3. Physical and Chemical Properties of Glue in Plastic Bottle

	Component A	Component B
Viscosity according to Brookfield	5,000–6,000mPas (S05; 20RPM)	3,500–4,000mPas (S04; 50RPM)
Colour	the same colour as a sheet	White (40% suspension)
Mixed ratio with regard to volume	100	1
Flashpoint	>11°C (EN 22719)	>50°C (EN 22719)
Open glue efficiency (minutes)	10-15 (20 ± 3 °C)	
Setting time (minutes)	35 (20 ± 3 °C)	
Solvents in the product	None	
Period of use	12 months (under proper storage conditions)	

### 3.4. Physical and Chemical Properties of Glue in Cartridge Dispenser

	Component A	Component B
Viscosity according to Brookfield	45.000-55.000 mPas (S05; 20RPM)	2,600-3,600mPas (S04; 50RPM)
Colour	the same colour as a sheet	White-transparent (4% suspension)
Mixed ratio with regard to volume	10	1
Flashpoint	>11°C (EN 22719)	>50°C (EN 22719)
Open glue efficiency (minutes)	10-15 (20 ± 3°C)	
Setting time (minutes)	35 (20 ± 3 °C)	
Solvents in the product	None	
Period of use	24 months (under proper storage conditions)	

### 3.5. Management and Storage

Highly flammable. Irritating to eyes, respiratory system, and skin. Skin contact may cause oversensitivity. In case of contact with the eyes, rinse eyes 15 minutes with water. In case of injury, immediately seek medical attention.

Consuming the product is dangerous to health. Wear appropriate protective clothing, gloves and protective goggles.

Keep the glue in a well closed packaging, in a well ventilated, dark room, at a temperature of up to 25°C. Keep away from ignition sources, reducing agents, acids, alkalis, accelerators, and heavy metals. Do not release into sewerage. Keep injection syringes and cartridge dispensers in horizontal position.

### 3.6. Glue Preparation

The recommended room temperature where gluing takes place must be 20°C. A glued joint will be optimum at a temperature between 18°C and 25°C. The area must be clean and dust free. Before gluing, check the colour of the Kerrock sheet and the colour of the glue – they must match.

There are two methods we can use to prepare the adhesive:

#### a. Glue in Cartridge Dispenser

For dosing glue in the cartridge dispenser we use a special dosing gun. Screw the mixer on the cartridge and place the set in the gun. Before gluing, press out one teaspoon of glue into the wastebin and only then apply glue to the desired area. When gluing with such glue it is not important to observe the ratio between components, as they are dosed automatically. Setting time is the same as in gluing with glue in a plastic bottle.

Consumption of glue for a glued joint with a 12mm thick edge:

50ml cartridge	5-8m of glued joint
250ml cartridge	20-30m of glued joint.

#### b. Glue in Plastic Bottles

Take Component A, mix it well, and put it in the Unguator jar, then add 1% of component B (which has to be mixed beforehand) and wait about 1 minute to let the air bubbles out. Apply the glue to the desired area. Effective time of glue prepared in this way is 8 to 12 minutes. Further work can take place after 2 hours. Glue reaches its final hardness after 24 hours. Make sure not to put too much of component B, as it would speed up the reaction and damage the glued joint (glue turns yellow, becomes fragile).

## 4. TOOLS AND ACCESSORIES FOR KERROCK PROCESSING

Like in other processing industries, the equipment for processing of Kerrock is also based on tools of various brands, which are more popular among individual processing.

Below you will find all recommended tools for processing of Kerrock acrylic sheets.

It depends on the individual processor and his needs which brand of tools he will choose. Nevertheless, it is very important to observe the guidelines, which describe methods of production, and tools, which are recommended or forbidden.

### 4.1. Basic Machines and Accessories for Kerrock Processing

- Squaring circular saw 3kW with an appropriate blade of the circular saw
- Handheld electrical router 800W for easier milling works and 1,600W for bigger cuts and profile milling
- Handheld electrical saw 1,200-2,300W
- Handheld electrical rotation eccentric grinding machine 250-500W
- Mobile vacuum cleaner 350-1,200W
- Furnace for heat treatment of Kerrock (up to 180°C) with regulation
- Joiner's clamps 100mm or fixing clamps 50mm
- Gun for application of elastic silicone or polyurethane glue
- Kit for preparation and application of Kerrock glue

Notwithstanding the type of saw, all must meet the following conditions:

1. Must be appropriate for heavy works.
2. Saw blades must be made of tungsten carbide of K10, K5 or diamond quality.
3. Saw blades must have a negative -6 degree angle.
4. Must have 4,000-6,000rpm.
5. Must be appropriate for cutting straight lines.

Saw blades must be regularly sharpened with a 400-600 rough (20-40 microns) abrasive wheel.

NOTE

### 4.2. Additional Machines for Kerrock Processing

To make the job easier, in the processing of Kerrock it is also recommended to use the machines enumerated below, as they significantly contribute to high quality processing and reduce the time needed to perform:

- Spindle moulder 3kW with feeder
- Benchtop milling machine or CNC milling machine (1.5kW)
- Handheld electric jigsaw 450W
- Band saw 3kW
- Handheld electric vibration grinder 280-550W
- Stable grinding machine for grinding wood
- Handheld electric belt grinder 1,000W
- Handheld electric drilling machine 800W
- Stable drilling machine 1,500W

## 5. PREPARATION OF WORKING AREA

### 5.1. Preparation of Working Area in Workshop

Before beginning the processing of Kerrock, we must ensure the following conditions:

- Recommended temperature in the workshop is 20°C. Optimum conditions are at a temperature between 18°C and 25°C.
- Before processing, keep the sheets in a room with an ambient temperature of approx. 20°C for at least 12 hours.
- Working areas must be well lit.
- There should be little or no dust and waste in the workshop where Kerrock gluing is taking place.
- Make sure dust and cuttings are well vacuumed.
- Working surfaces for gluing Kerrock should be completely flat.
- Make sure sheets are well protected from any damages during storage.

### 5.2 Preparation of Working Area on Customer's Premises

Before installing the product on a customer's premises, it is recommended to check the following:

- Access from parking area to entrance doors
- Remoteness and other obstacles
- Size of entrance
- Condition of walls
- Height of ceiling
- Electrical and water installations
- Note any other information which would speed up the process of installing a Kerrock product.

Provide all customers with pleasant service, with an emphasis on treating customers in a polite and respectful way.

Perform all safety measures in order to protect the working area from dust and residue.

Provide the customer with all required information on the characteristics of Kerrock products and explanations regarding work.

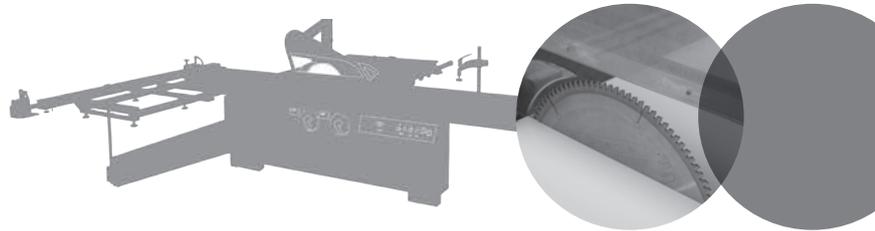
It is required to reach an agreement with the customer about all works prior to the commencement of work.

Provide the customer with written and oral instructions about the correct maintenance and care of the Kerrock products.

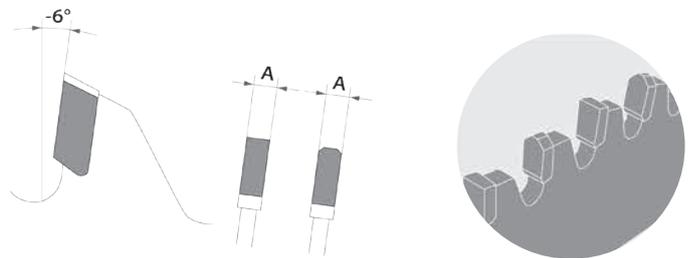
## 6. CUTTING KERROCK SHEETS

### 6.1. Required Tools

Sawing of Kerrock sheets is mostly done on squaring circular saws for cutting standard panels, such as particle boards, plywood, mediapan sheets, etc.

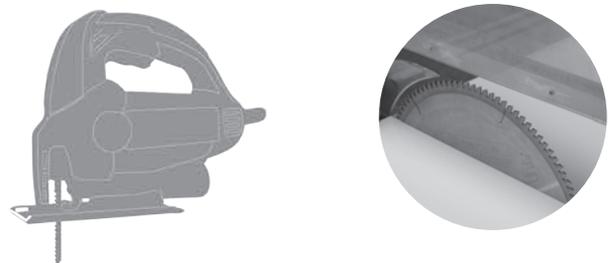


Circular saw blades for cutting Kerrock have straight and trapezoid-shaped teeth, which are by 0.3mm higher than straight teeth. Teeth have a rake angle ( $-6^\circ$ ).



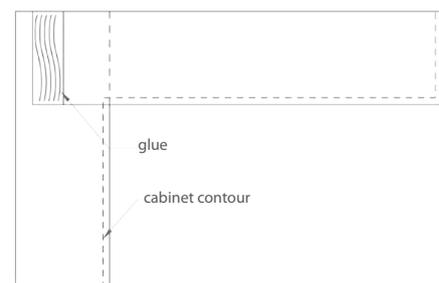
For rougher cuts or for pre-preparation of Kerrock for further processing we can use band saws or jigsaws.

We must be aware that such sawing causes small cracks in the material, hence minimum over-measurement is 5mm.



For cutting it is recommended to use templates which actually represent the top surface. It is very important that the template is flawless in order to facilitate the assembly process. There are many different ways to prepare templates, so you can choose the one which best suits your manner of work.

Most frequently we use cardboard templates which can be adapted even in smaller rooms, and we can write on them certain information for further processing. They do not bend easily and have a favourable price. On the basis of these templates, a customer will be able to see the actual size of the upper surface, which will enable him to change the size of overhang or any other feature. This cardboard template can also be used for the protection of the upper surface after the assembly has been concluded. This is especially so when other craftsmen, such as painters, electricians, plumbers etc. continue to work and could accidentally damage the surface.

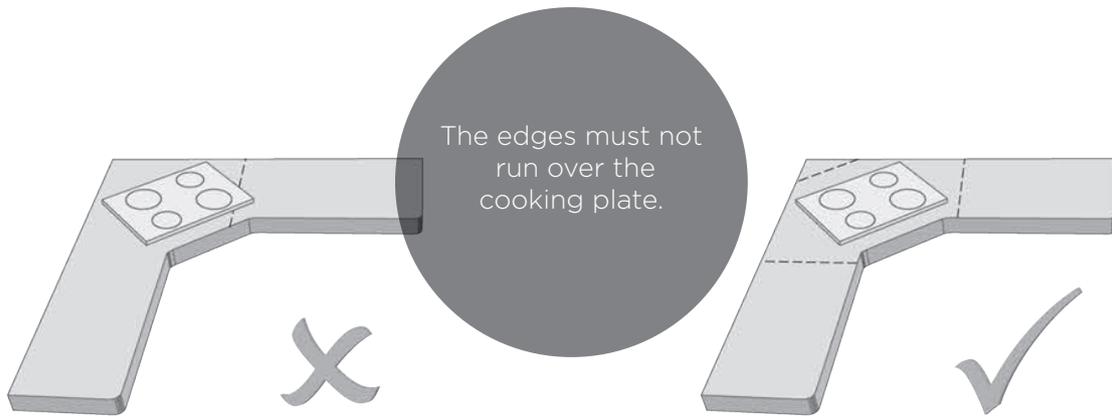


## 6.2. Execution

Planning is of key importance for guaranteeing a simpler and higher quality execution. Here we must observe the following rules:

NOTE

All edges must be at least 50 mm away from any cut (cooking plate, sink).



The cut edge must be even and smooth, without any broken off edges, in order to ensure invisible joining. The edges represent potential weak points, where cracks can begin. In planning cuts we must bear in mind the minimum radius of 6mm, as the rectangular internal joints also represent a point of risk, where a crack can appear.



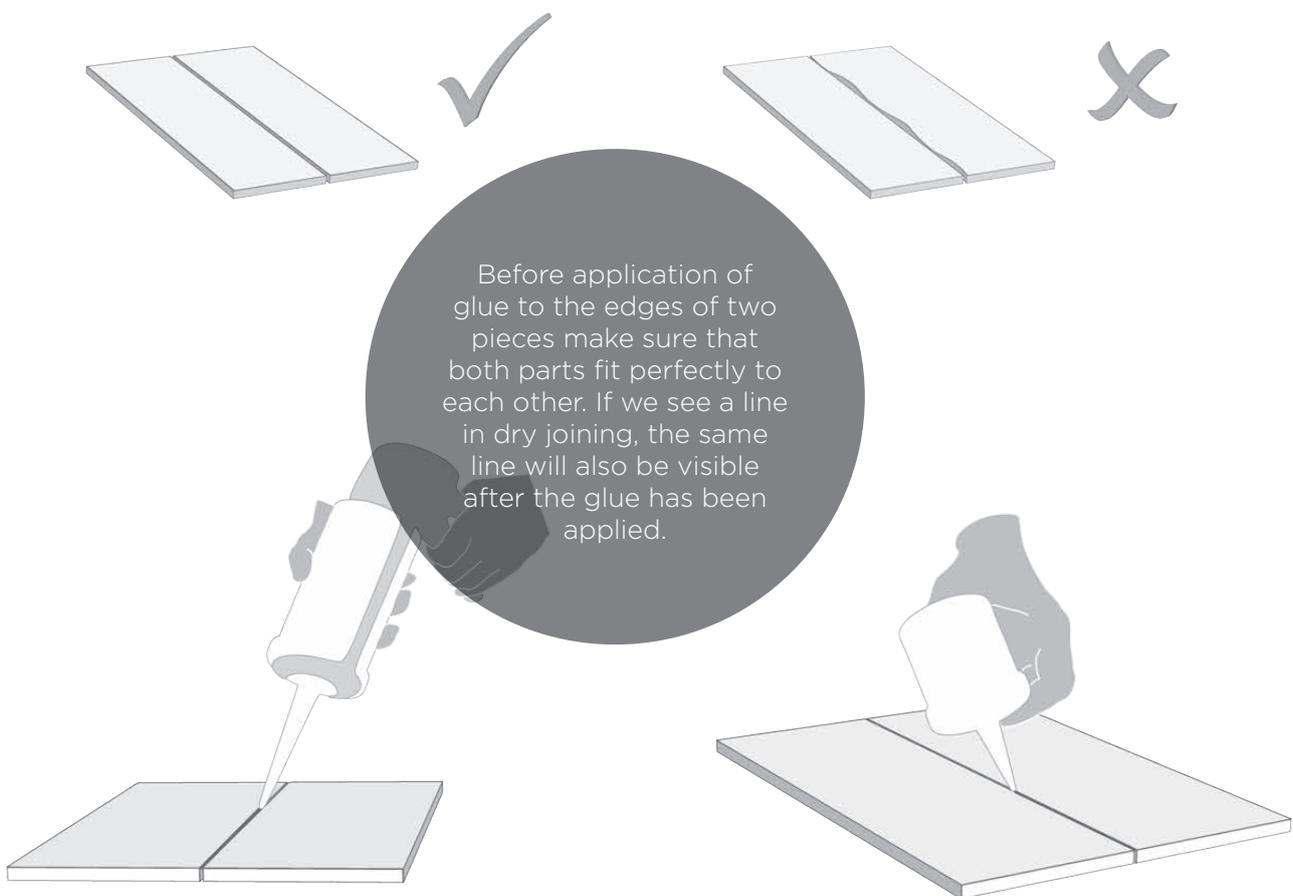
## 7. GLUING

Basically, there are two types of gluing: gluing Kerrock with Kerrock and gluing Kerrock with other materials.

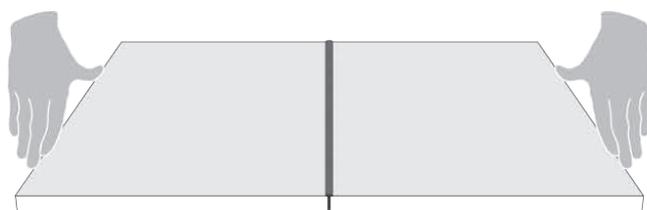
### 7.1. Gluing Kerrock with Kerrock

For gluing two Kerrock elements we use two-component acrylic adhesive, which is used to achieve almost invisible joints, and excellent mechanical and physical properties (the glue is the same colour as the Kerrock sheet). Observe the instructions for the preparation of the glue and making the joint. The number of the colour on the glue must match the number of the colour of the Kerrock sheet. Before gluing, check the colour uniformity of the Kerrock material.

The execution of edges must ensure the smallest possible use of material and the highest quality of the product. Union points must be flawless on edges, cleaned and defatted with technical alcohol. Stains the alcohol does not remove are removed with sandpaper.



Glued pieces are placed on a flat surface facing upwards. Make a 2–3mm long gap. We recommend using a base made of material that Kerrock glue does not stick on (PE, aluminum, laminated chipboard, waxed or PVC self-adhesive tape, etc.). The glue is inserted into the gap between the two Kerrock elements, after which they are pressed to their final position.



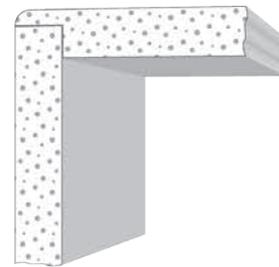
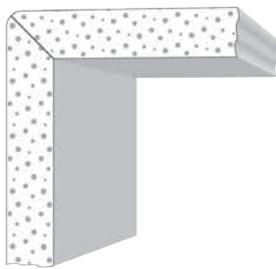
For angle glued pieces we apply glue on the surface and then press the glued piece perpendicularly to the surface. The glued piece is fixed with clamps or tongs. We recommend moving the glued piece 1–2mm into the interior of the surface. This ensures a smooth edge after the completed processing.

After two Kerrock pieces have been glued, wait approximately 60 minutes, depending on the ambient temperature, before continuing with the processing of the joint. The glue is appropriate for further processing after it has completely dried and hardened. Surplus glue should not be removed while still soft, because it shrinks by approx. 10% during setting.



In case of Kerrock sheets which contain metal particles (Metal, Luminaco S and Marble effect), the appearance of the surface and edge of the sheet differ, so make sure the edge is not visible when making joints. There are two ways for doing that:

- Joining under a 45° angle
- Joining with a groove



In the first example two Kerrock pieces are cut on the intended joint area under a 45° degree angle and then glued together. You can also use an adhesive tape.

In the second example, a groove is made in the Kerrock sheet that reaches up to 2/3 of the sheet deep and is as wide as the thickness of the glued piece. Glue them together.

Such a method is compulsory for sheets with Metal, Luminaco S and Marble effect, and recommended for the other effects.

## 7.2. Gluing Kerrock with Other Materials

Kerrock sheets – products can be glued to all materials with permanently elastic silicone or polyurethane adhesives, which enable stretching of glued pieces with regard to their stretching properties, thereby preventing product deformity. The thickness of the elastic layer of glue must be between 1 and 3mm, depends on the material used, dimensions of the material and temperature changes in the room. The distance is assured with a double-sided adhesive tape, which during the setting time of the elastic glue also assumes a gluing role, because the setting time of permanently elastic glues is also up to 24 hours at a room temperature and 50% humidity.

In case of horizontally-positioned and laden Kerrock products we must ensure the bearing batten sub-construction, which can be made of massive wood, panel sheets, or metal elastically glued to Kerrock. The wooden sub-construction must be protected from moisture. Strips of cut Kerrock leftovers can also be used for the bearing sub-construction.

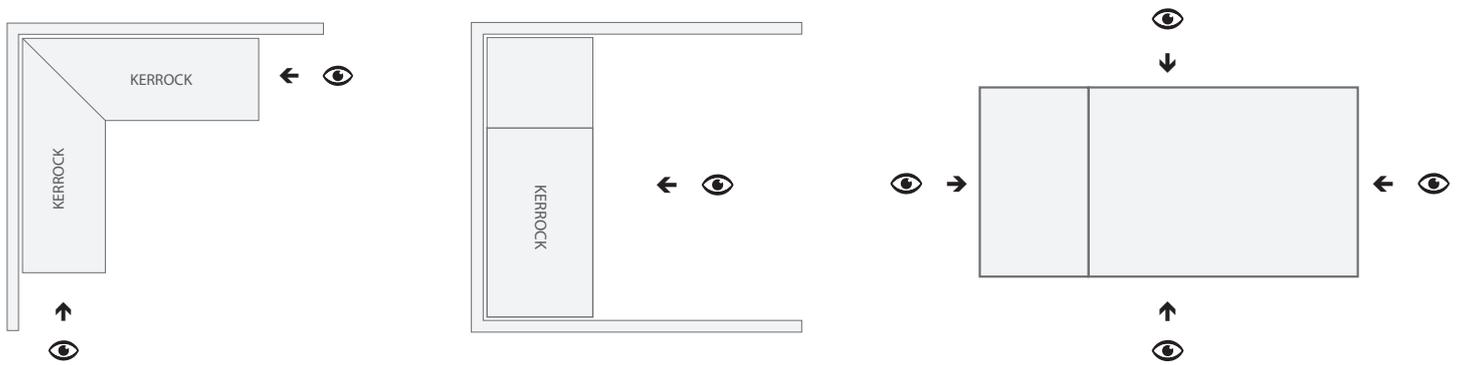


### 7.3. Special Methods of Joining Marble and Metal Effect Sheets

With Marble Effect sheets, it is necessary to carefully examine the sheet and the pattern before gluing. When bonding, it is first necessary to check whether the pattern from one sheet matches the pattern on the other sheet without any glue. Full matching is not possible, however with good planning it is possible to achieve very nice transitions. All joints/glued pieces must be performed under an angle 45° or with a groove up to 2/3 (see page 16).

Metal Effect sheets contain metallic particles – glitter and are joined similarly to the previously described marble effect sheets. When the sheets are being over-poured, the reflection of glitter is oriented and of a different colour when viewed at different angles (consequently the sheet is of another colour).

Prior to gluing and formatting the sheets, it is advisable to roughly place them and inspect whether all the glitter reflect (light-emitting particles) is the same in all directions. It is advisable to perform an inspection from all four directions or from the direction where this will be visible (for example, at the kitchen counter near the wall in an L-form there are only two visible directions; at the kitchen island there are four directions, and at the counter between two walls there is only one direction)



Variations in glitter orientation are enhanced by more qualitative polishing – the more polished, the greater the difference in the orientation of the glitter – which is only visible when joining two sheets.

All the above applies only for joining sheets. If the products are made from one piece of Kerrock sheet and there is no joining, the orientation of the sheet is irrelevant.

## 8. EDGE DETAILS AND THEIR MAKING

### 8.1. Making the Countertop Back Edge

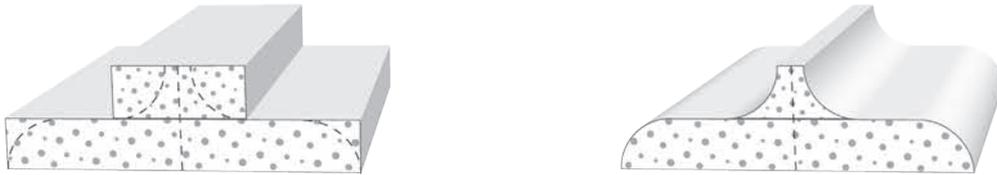
In making the countertop back edge (wooden trims) we have a chance to offer our customer unique edges, which ensure excellent appearance and make cleaning easier. And this makes people love the Kerrock material even more.

There are two effective ways for making a rounded back edge on the kitchen counter:

- Pre-prepared edge element
- Edge made with AK edge milling machine

#### 8.1.1. Pre-prepared edge element

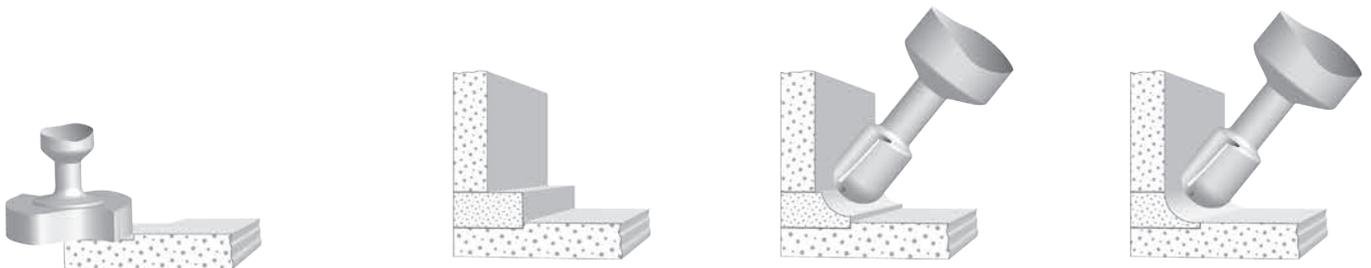
For making a pre-prepared edge element we cut two strips of Kerrock material, 80 and 30 mm wide, and glue them together. Make sure the 30mm glued piece is glued parallel throughout the entire length. After the joint has dried, mill the edges to the desired radius and cut lengthwise. Such wooden trim with radius is glued onto the countertop with the groove we have made in advance.



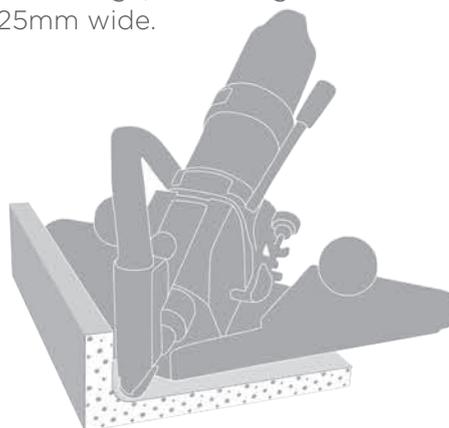
#### 8.1.2. Edge made with AK edge milling machine

If we have an edge milling machine, the wooden trim can be made in accordance with the following procedure:

- Glue a strip of Kerrock material 24mm wide on the countertop.
- Glue a strip of Kerrock material in an upright position on the glued strip reaching to the desired length of wooden trim.
- After the glued has hardened, make the desired radius with the edge milling machine.



The processed piece is then cut leaving 2-3mm of edge, which is glued on the countertop, where we have previously made a groove 2-3mm deep and 25mm wide.

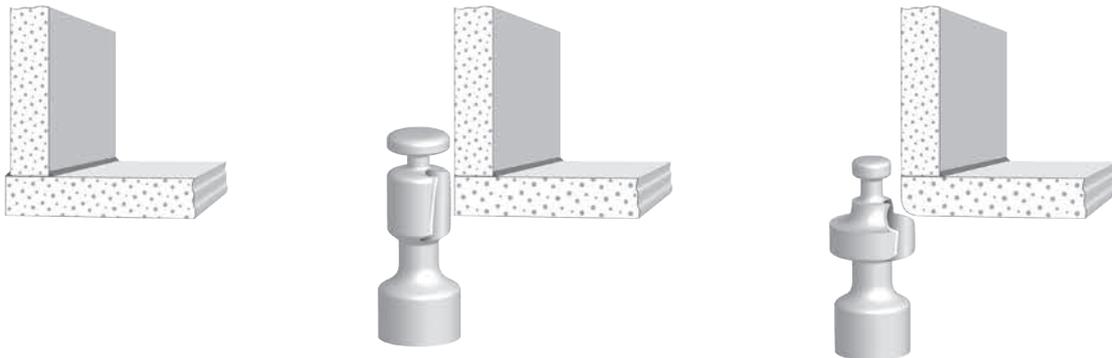


## 8.2. Making a Countertop Front Edge

The design of the front edge is limited only by the customer's wishes and imagination. We will introduce just a few of the options for making the front edge:

### 8.2.1. Making a Classic Edge

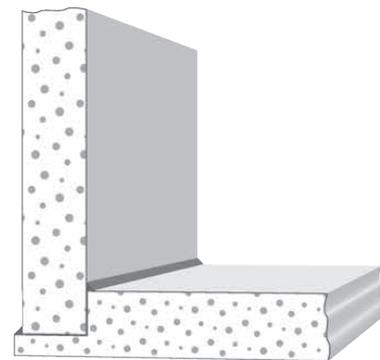
For making the front edge we mostly use the classic edge or rectangular glued piece. Cut a piece of Kerrock material of desired width, and glue it on the back side of the countertop with the front side facing outwards. The glued piece should be moved into the interior of the countertop by 1–2mm in order to speed up further processing.



In the case of the groove method, make a groove on the back side of the kitchen counter reaching up to the 2/3 of the counter deep, which is as wide as the thickness of the glued piece. The patch is glued into the grooved part.

In case of Kerrock sheets which contain metal particles (Metal, Luminaco S and Marble effect), the appearance of the surface and edge of the sheet differ. There are two ways to make a good joint between the sheet and the edge:

- joining under a 45° angle
- joining with groove



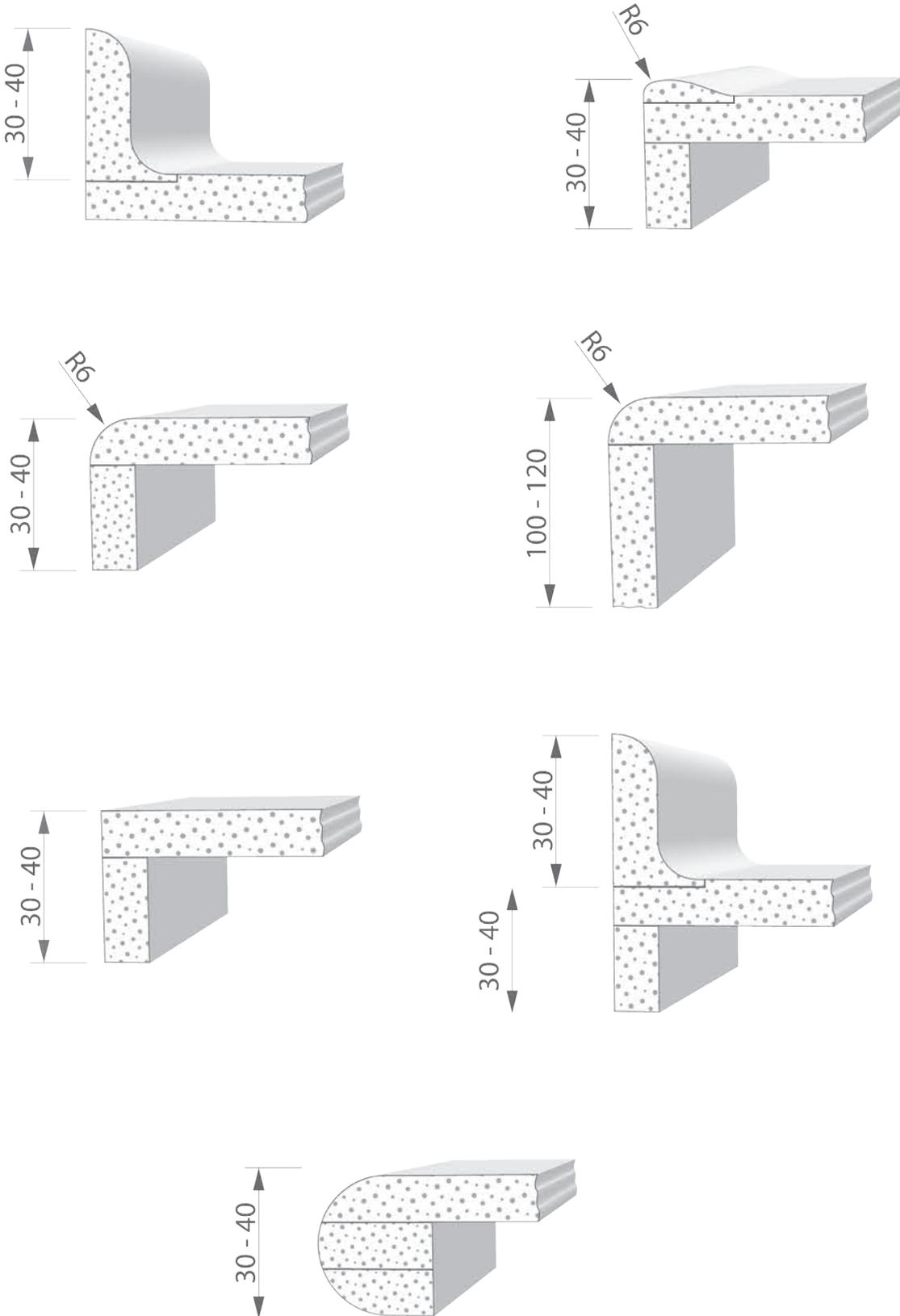
In 45-degree joining, both parts, the glued part and the counter are cut at a 45° angle. Glue an adhesive tape to the back side for fixing both parts. After the glue has been applied, the glued part is introduced to the sheet, while the adhesive tape prevents joint deformity.

Such a method is compulsory for sheets with Metal, Luminaco S and Marble effect, and recommended for the other effects.



## 8.2.2. Profile Edges

In addition to a classic edge, we can also make various profile edges using Kerrock material. Depending on the desired edge width, several pieces of Kerrock material are glued together, which is processed with different profile milling machines after the glue has completely set.



## 9. INSTALLATION OF SINKS AND WASHBOWLS

It is possible to install a washbasin or a sink made of either Kerrock material or stainless steel.

### 9.1. Making a Rough Cut

On the working surface of the Kerrock counter designate the internal edge of the sink with a pencil. If that can't be done, mark the external edge and then deduct the thickness of the sink and an additional 5mm. Using a jigsaw cut out the marked part. It is mandatory to observe the over-measurement of 5mm, because the jigsaw only serves for making rough edges.



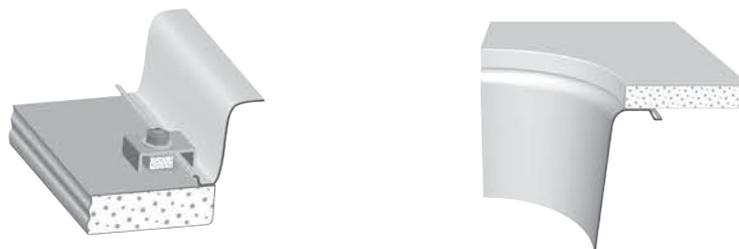
### 9.2. Installation of Kerrock Sinks and Washbasins

When we have made a rough cut, we prepare the back side of the work counter for gluing, remove all impurities and defat with technical alcohol. Check if the cut fits the sink or bowl and if it evenly lies on the work surface. Then apply a sufficient quantity of Kerrock glue on the circumference of the cut and place bowl or sink on it. It is recommended to additionally weigh the glued bowl or sink.

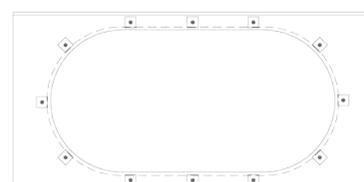


### 9.3. Installation of an Inox Sink

For installation of an Inox sink bearing screws (not supplied with Kerrock sheets). Kerrock material is cut into rectangular pieces sized approx. 20<sup>2</sup>40mm. In the middle of the material drill out a hole with a diameter of 6mm. One side of the hole is drilled for the M6 screw.

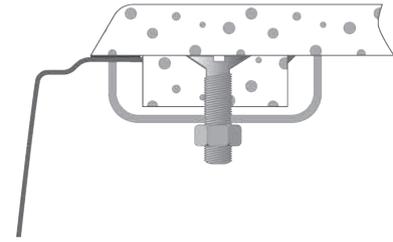


Check if the cut fits the Inox sink and place it in the desired position. At every 10 to 15cm of the Inox sink glue the bearing screws.



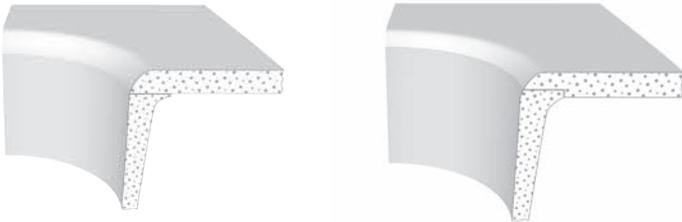
We recommend gluing them tightly along the Inox sink, so their precise location will no longer be required during final installation, because the glued hooks define the precise position of the Inox sink.

After the bearing screws have been fixed, fasten the Inox sink with assembly hooks and continue with the processing of the finishing edge of the cut. After final processing, disassemble the edge of the Inox sink and apply silicone glue on the lying surface and screw the sink back in place.



#### 9.4. Making the Finishing Edge of a Cut

For making the finishing edge of the sink or bowl we have many options, which depend on user preferences and skillfulness of the maker. The picture below shows the most frequently used finishing profiles. These are made with the handheld milling machine and appropriate blade. It is also possible to install a drainer in the Kerrock countertop.



If the sheet and bowl are of the same colour, it is recommended that the bowl be installed in the same way that it is prescribed for the production of the edge with a metal effect.

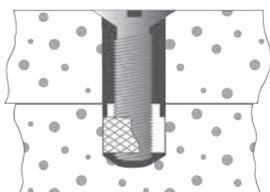
This reduces the visibility of the colour shade difference between the sheet and the bowl.

#### 9.5. Making Boreholes

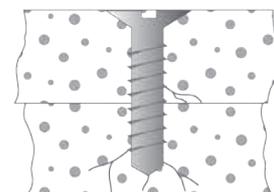
Drill the Kerrock surface using a handheld or stable drilling machine with drills made of high speed steel or metal carbide. For boreholes up to 50mm deep we use high speed steel drill with a normal point with a 120° angle or drills with a metal carbide point. For boreholes deeper than 50 mm we use high speed steel or metal carbide core drills.



If screwing joining in the Kerrock surface is required, we must insert a brass or PVC cork. Observe work conditions which apply for glass or other more fragile materials. The borehole must be approx. 10% bigger than the screw's diameter. We must also insert a spacer between the Kerrock surface and a screw and the second material with screw joints.



Under no circumstances cut coils into a Kerrock surface, as that could result in cracks, and consequently, breakage of a Kerrock surface.



## 10. INSTALLATION OF A COOKING PLATE

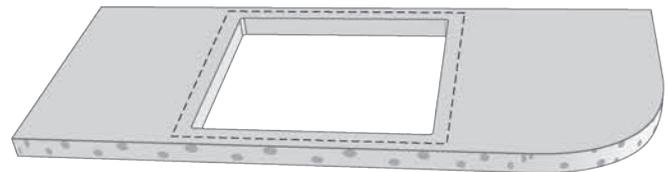
We can also install a cooking plate into the Kerrock countertop. We should be aware that installation of cooking plate is the job where most faults are possible. Below you will find a list of possible causes:

- Heat – expansion and shrinking (overheating)
- Weak points as a result of cutting, which increases the possibility of cracks
- The missing Al belt for protection against heat
- Defective cooking plate emits too much heat
- Not enough space between a cooking plate and a Kerrock countertop
- Missing or poorly glued reinforcement of a cut

Glass ceramic cooking plates are not appropriate for drop-forged installation (evened with counter) into Kerrock countertops. Kolpa d.d. warranty does not cover such installation.

### 10.1. Making a Cut

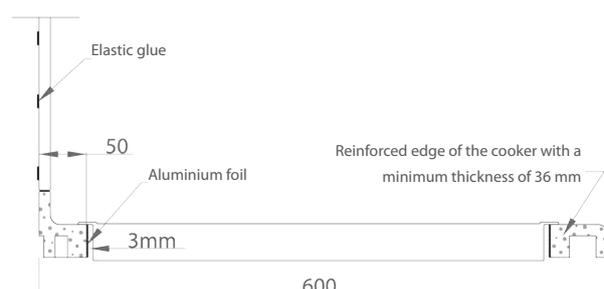
After defining the place of installation of a cooking plate, use a milling cutter to make a rough cut, which is at least 3 mm smaller than the required width. Make sure the longitudinal or transverse joints of a Kerrock countertop is at least 70 mm away from the source of temperature.



If you are installing cooking plate in a Kerrock countertop with Kerrock wall cladding, which is fixed to the countertop, the latter must be at least 150mm away from the cladding.



In case of a work counter that is 600 mm wide we can mount a wall cladding made of Kerrock material, but it should not be rigidly joined with a countertop. It is fixed elastically, as the picture shows.



## 10.2. Reinforcement of a Cut

Once your rough cut is finished, fix a reinforcing framework made of two strips of Kerrock, 12mm thick and 30-50mm wide, glued together. Its inner dimensions should match the dimensions of the aperture foreseen for the cooking plate. Fix the framework on the rear side of the countertop to the aperture for the cooking plate.

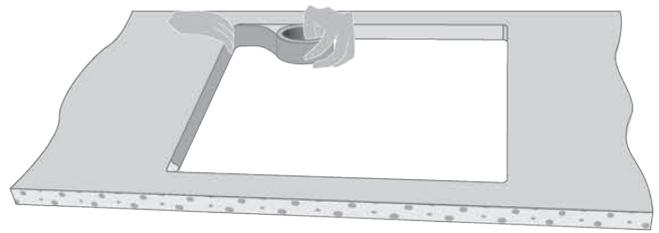
After gluing, process the rough cut with a milling machine and grind the rim of the cut with sandpaper of the same quality as the visible surface of Kerrock sheet.



## 10.3. Installing a Cooking Plate

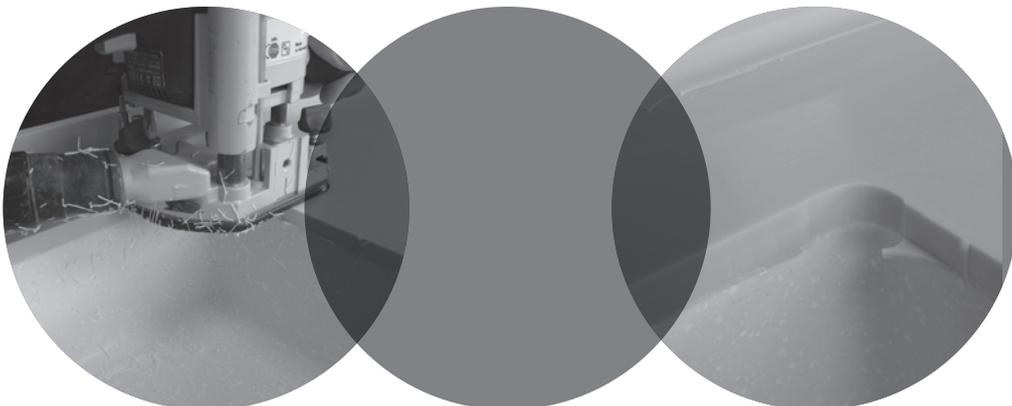
Before installing a cooking plate check the rim of the cut once again. The more we have processed the cut as well as the upper and lower surface, the fewer problems we can expect during use. After we have made sure the rim of the cut is professionally done, place the protective Al self-adhesive tape (3M 425 aluminum tape or similar).

By installing a tape we achieve a more equal distribution of temperature throughout the entire rim. Insert cooking plate. Make sure the gap between the edge of Kerrock countertop and cooking sheet is at least 3mm.



### NOTE

Kerrock is not appropriate for an installation of cooking sheets flush with a counter.



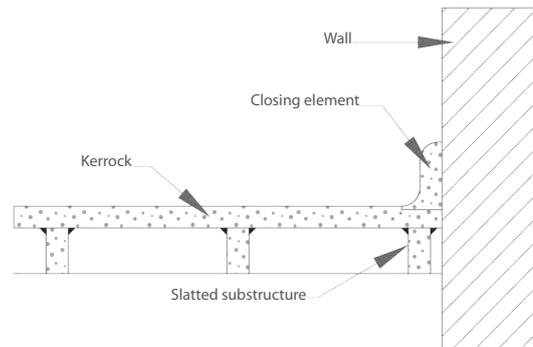
## 11. SUB-CONSTRUCTION

For various applications we use different thicknesses of Kerrock sheets. Further on, you will find the minimum thicknesses required for individual applications:

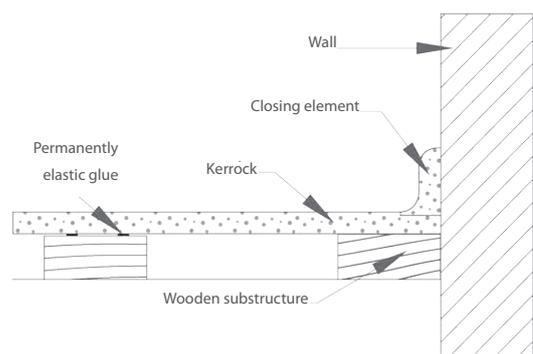
- 6mm Kerrock sheet, used only for vertical wall claddings;
- 8mm Kerrock sheet, used for table plates, sink counters, bathroom environments and façades;
- 12mm Kerrock sheet, used for kitchen countertops, table plates and other horizontal surfaces;
- 18mm Kerrock sheets, used for self-standing self-bearing sheets.

In all applications, where the spacing between bearing parts is 500mm and more, it is obligatory to use

sub-structure. We recommend making the bearing support from Kerrock material, which is resistant to moisture and has the same dilatation coefficient as the working surface.

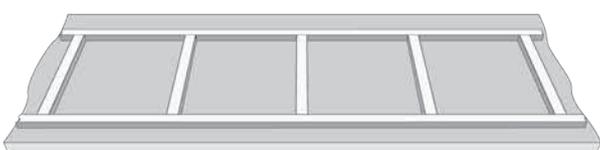


This is used to avoid any changes in material due to temperature changes. The support can also be made of wood, wooden sheets or metals, but they must be appropriately protected from moisture. Due to different thermal expansion coefficients Kerrock sheets must be glued to a support made from other materials with permanent elastic adhesive.



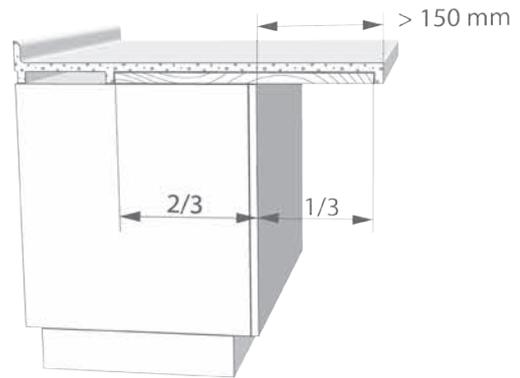
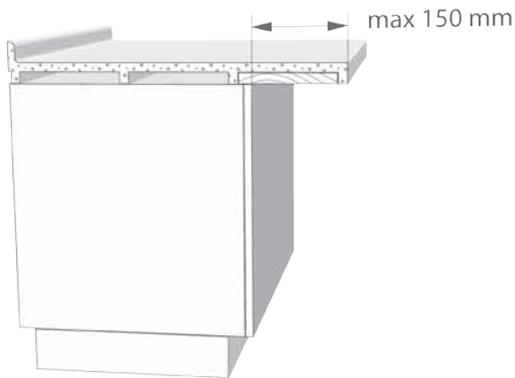
### 11.1. Support of Countertop

Kerrock countertops are mounted on an appropriate bearing sub-structure. For kitchen counters we most frequently use sub-structure in the form of a ladder. Along the kitchen counter place the bearing element on the front and back side. Longitudinal elements are connected with transversal ones every 600mm. Such a sub-structure is prepared of Kerrock material strips, which are 12mm thick and at least 30mm wide, and then glued with the Kerrock glue to the back side of the kitchen countertop. Sub-structure elements can also be made of laminated particle board, at least 18mm thick and 50mm wide. In this case use permanent elastic silicone adhesive.

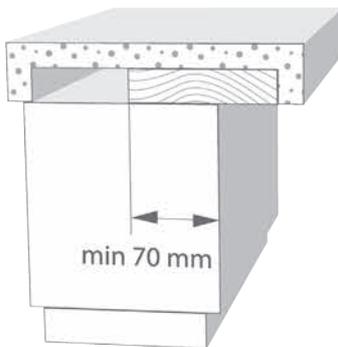


Sub-structure can also be done only with longitudinal reinforcements, and namely, by placing bearing parts on the front, middle, and back side.

## 11.2. Supporting the Overhang

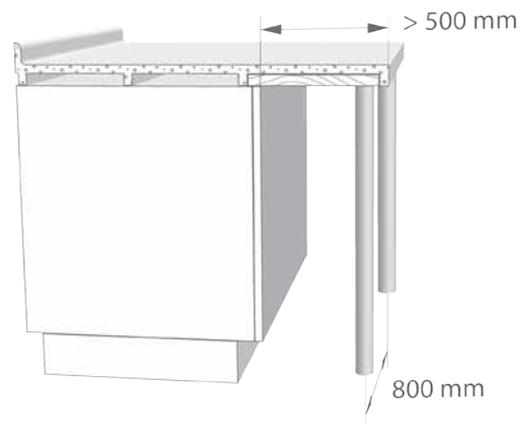
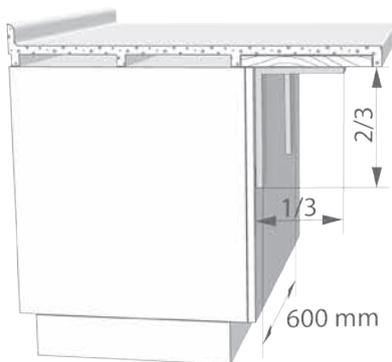


Overhangs must reach at least 70mm into the support (cabinet).



Under such overhang we recommend placing a piece wood or laminated particle board, which serves as a filling material and enhances aesthetic appearance of the product.

For overhangs bigger than 150mm, we must use a sub-structure, whereby  $\frac{2}{3}$  of the support surface reaches into the cabinet, and  $\frac{1}{3}$  serves as the bearing part.



In order to reinforce such overhangs we can also use bearing consoles, which are placed at least every 600 mm. Vertical parts of the console must be 50% longer than its horizontal part.

Overhangs wider than 500mm must be supported from the ground. For such bearing supports we can use wood or Kerrock material. The support is required every 800mm.

## 12. GRINDING IN POLISHING

Before final grinding bear in mind the following:

- a. Type of sandpaper that will be used
- b. The desired level of shine of finally processed Kerrock surface
- c. The type of abrasive papers that will be used depends on the desired final processing. There are rough abrasive papers – average size of a rough grit, micron – equally distributed roughness, sandpapers for wet or wet and dry grinding. We recommend using 3M Micron sandpapers.
- d. For achieving final shine in polishing we must be aware that dark colours are far more sensitive for maintenance and require more care to preserve the full shine. Therefore we do not recommend using dark colour shades on exposed areas.

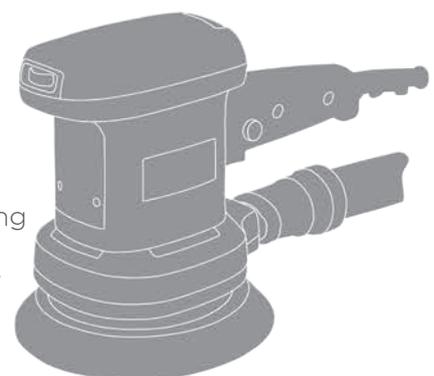
The table below shows the use of different types of sandpaper for achieving the desired shine:

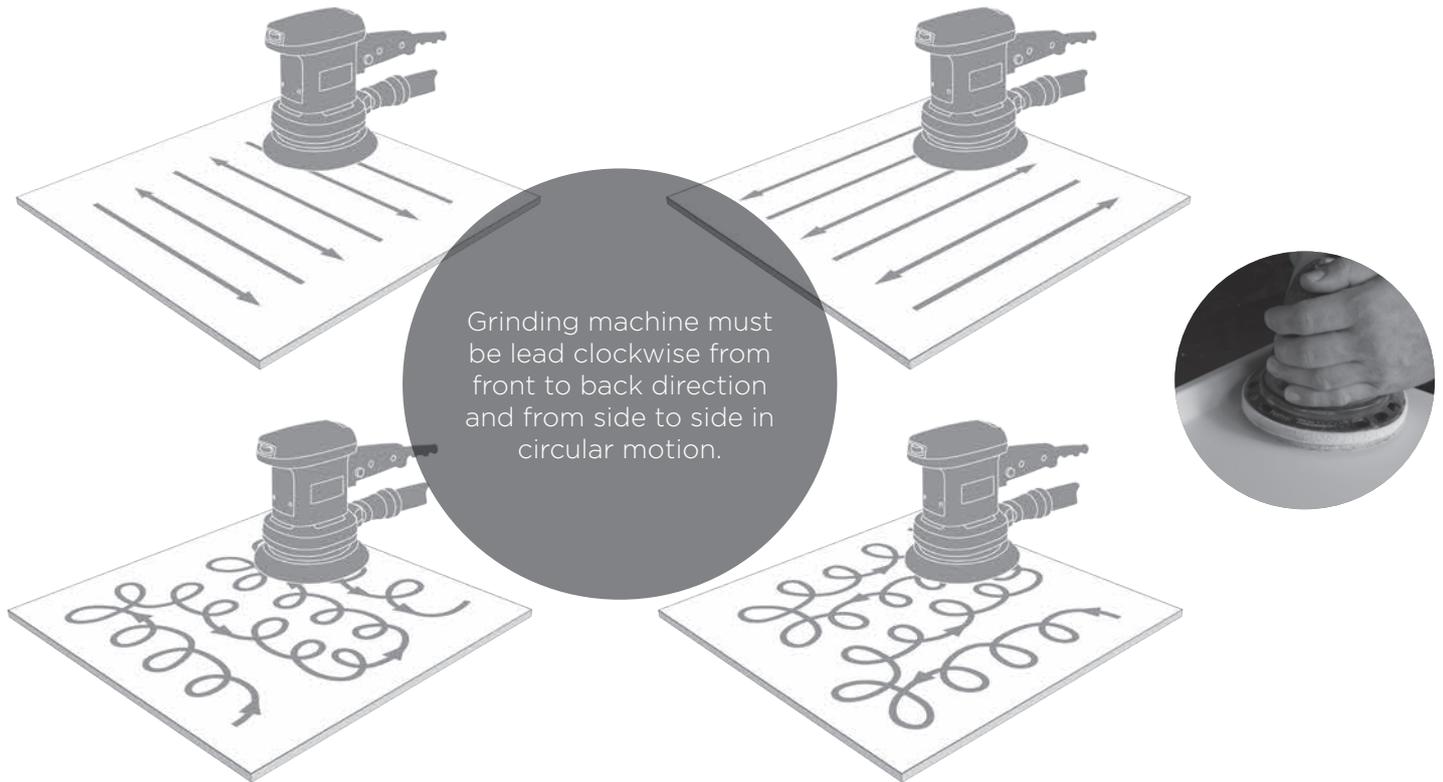
Conclusion	Sandpaper brand		Maintenance	Advice	
	FESTO	Mirka			
Mat	P150 GRANAT	P150 Abranet Ace	Easy maintenance, low maintenance costs	For public and frequently-visited areas	
	P180 GRANAT	P180 Abranet Ace			
	P240 GRANAT	P240 Abranet Ace			
	P320 GRANAT	P320 Abranet Ace			
Semi-gloss	P150 GRANAT	P180 Abranet Ace	Moderate maintenance	For darker coloured decor.  The most common level of surface treatment	
	P180 GRANAT	P240 Abranet Ace			
	P240 GRANAT	P320 Abranet Ace			
	P320 GRANAT	P400 Abranet Ace			
	S400 PLATIN 2	P360 Abralon			
	S500 PLATIN 2	P500 Abralon			
High gloss	The same as semi-shine	The same as semi-shine	Sensitive and frequent maintenance	For decorative and vertical surfaces	
	S1000 PLATIN 2	P600 Abralon			
	S2000 PLATIN 2	P1000 Abralon			
	S4000 PLATIN 2	P2000 Abralon			
	Polishing paste				P3000 Abralon
					P4000 Abralon Polishing paste

For information about other brands refer to your supplier.

### 12.1. Grinding

Kerrock products must be ground in order to achieve final form. Grinding is done with eccentric vibration machines with vacuuming. For quality processing of surface grinding must be done gradually, with sandpaper with rough grits and step by step until fine granulation is achieved.





Otherwise, grinding will create whirls and scratches. The press of a grinding machine to a grinding surface should not be too hard, as this would cause overheating of the grinding medium and render the processing of Kerrock surface more difficult as a result of polymerization of material. When changing sandpaper urgently wipe the ground surface, because the dust residue has the same granulation as the sandpaper, and would leave traces of granulation of previous sandpaper.

## 12.2. Polishing

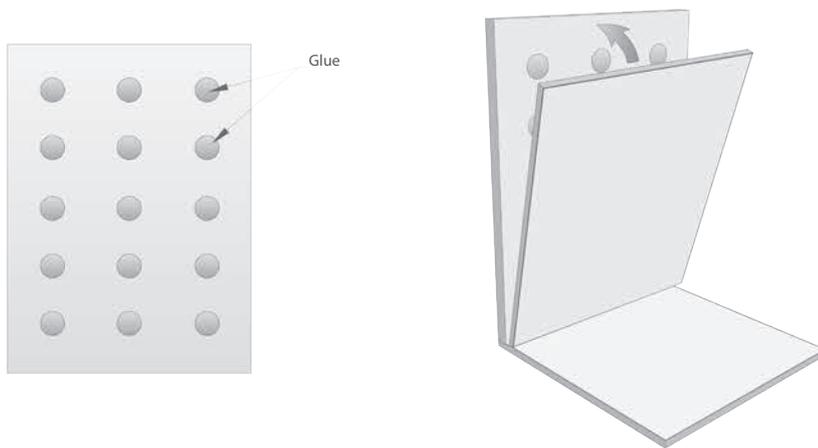
If we want to achieve a shiny Kerrock surface, we must use sandpapers with finer granulations.

Finish by using a hard polishing pad and a polishing paste (for dyed surfaces or stainless steel), apply on the Kerrock surface and polish as long as necessary to reach the desired shine. Please note polishing is not appropriate for working surfaces as it would require a far more complex maintenance.



## 13. VERTICAL APPLICATIONS

Kerrock sheets can also be used in combination with numerous other applications, such as furniture, various decorative objects, tiles, and wall cladding.

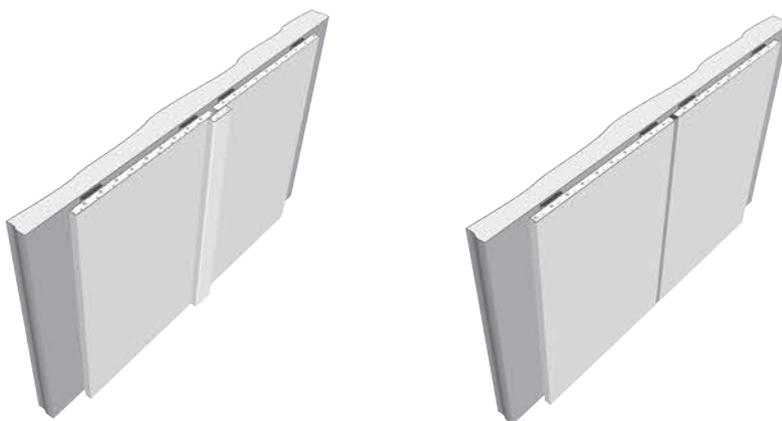


All these products are executed in a similar manner, as described for horizontal working surfaces.

NOTE

### 13.1. Assembly and Placing

For placing wall cladding we need Kerrock sheets at least 6mm thick. Check if the wall on which you will place the Kerrock cladding is flat; if not, it is required to flatten it (you can also use a sub-structure made of wood, water resistant chipboard or Al bearing profiles). After the installation or flattening of surface make sure the Kerrock cladding fits the wall perfectly. Make sure you leave enough space along the edges for thermal dilatation of material. Kerrock cladding is glued to the surface with elastic silicone glue.



All these products are executed in a similar manner, as described for horizontal working surfaces.

# 14. THERMAL TREATMENT

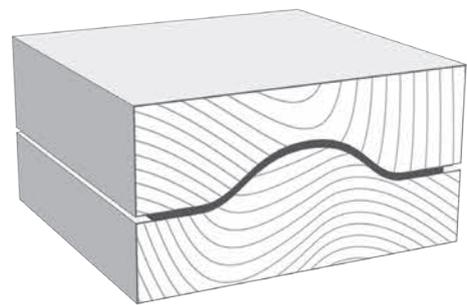
Kerrock material can also be thermally treated – it is moulded by heating into various forms, bended and also three-dimensionally formed.

## 14.1. Preparation of Kerrock Material

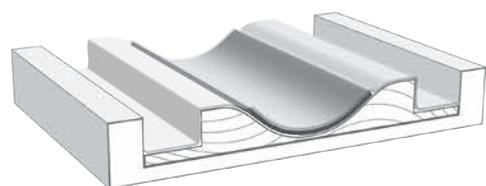
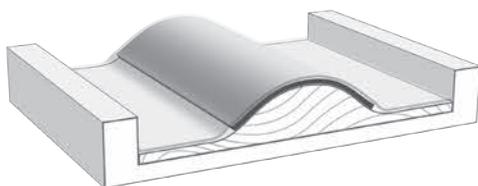
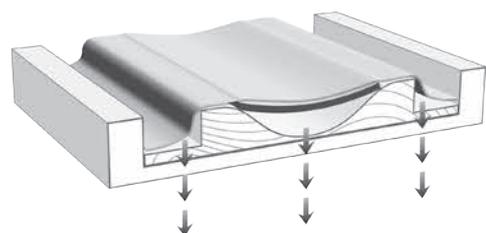
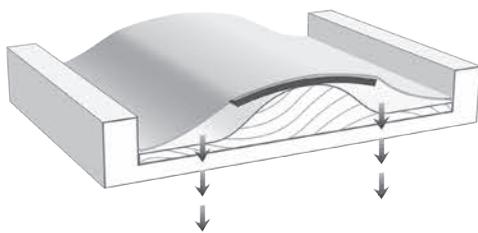
The Kerrock surface we want to thermally treat must have smoothly ground edges in order to avoid cutting effects and micro cracks. The Kerrock surface can also be ground up to the granulation of P240, whereas final grounding can be done after thermoforming. Likewise, the Kerrock surface must be cut with an over-measurement of at least 10mm, because the material bends on the edges due to too fast cooling.

## 14.2. Preparation of a Template

For thermal treatment of Kerrock surfaces we use two-sided moulds to achieve the desired form after cooling of the Kerrock surface to room temperature. The template is cut out of plywood or MDF sheet. Make sure the surface is smooth without any deformations which would prevent heat transfer. Internal parts of the template must be supported in to endure the pressure. We do not use metals or hard wood, because these materials absorb temperature and affect the quality of thermoforming.

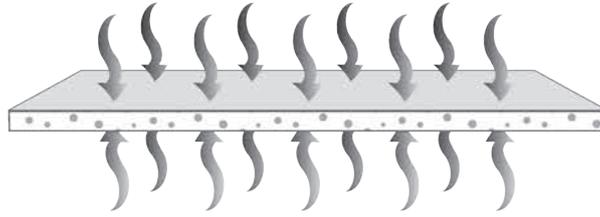


For thermal treatment we can also use vacuum membrane presses in which the membrane assumes the role of one part of the mould.



### 14.3 Thermoforming

Before thermoforming we must ensure equal heating of the Kerrock surface. It is heated in furnaces (hot-air furnaces or joiner's presses with electric heater) to the temperature of  $160^{\circ}\text{C} \pm 10^{\circ}\text{C}$ .



The table below shows the heating time required and the smallest allowed curve radius.

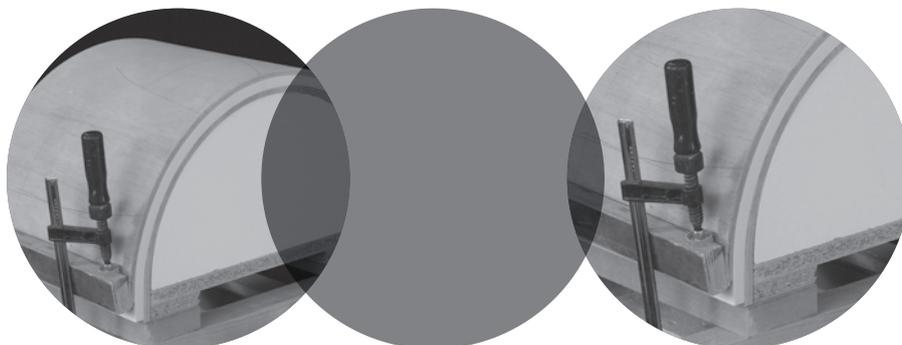
Sheet Thickness (mm)	Heating Time (min)	Minimum Radius (mm)
6	approx. 16	25
8	approx. 18	50
12	approx. 22	90
18	approx. 30	120

The Kerrock surface heated in such a way that is inserted into the mould and hardened. In addition to heating, equal cooling is of equal importance for uniform distribution of inner tensions in the material. Make sure that the heating temperature does not exceed  $170^{\circ}\text{C}$ , because it can damage the Kerrock surface. In case of low temperature the material can break or turn pale in the area being bent.

After cooling, a Kerrock surface has a new stable form, but it has preserved all technical features it had prior to thermoforming. For final treatment, we observe the procedures as described in previous chapters.

### 14.4. Easy-Shaping Sheets

Use for products that need to be transformed into more demanding shapes with smaller bending radii.



# 15. PECULIARITIES OF KERROCK PROCESSING

## 15.1. KERROCK LUMINO EFFECT

Kerrock Lumino sheets are processed in the same manner as any other Kerrock sheets. If they are to be used unlit. All procedures remain more or less the same. Observe additional instructions, however, when Lumino sheets are intended to be illuminated.

In order to assure customer satisfaction with a product featuring Lumino sheets, the according laws of lighting and characteristics distinguishing such a product must be taken into account from the design stage.

### Matching of Lumino Effect sheets

Joints are crucial for appearance. When illuminated, joints turn more visible than at normal room light. therefore, they shall be placed where least noticeable. When designing, consider that any corners and supporting frameworks create shadows when illuminated.

In order to keep joints as invisible as possible, the bonding must be perfectly accurate (edges perfectly bonded, no bubbles from adhesive, any excess adhesive perfectly ground off from the seam on both sides).

For an even dispersion of light through the Lumino sheet, it is necessary to provide its uniform treatment on both sides (uniform thickness and the same quality of the treatment across its entire surface).

### Illumination

Choosing the most suitable type of lighting depends on the desired effect. Furthermore, take into account the amount of heat generated by the light source to avoid deformation caused by overheating of the Lumino from one side. For this purpose, make sure there is an adequate cooling space provided between the light fixtures and the Lumino.

The choice of an appropriate type of light has a big impact on the end result. This can vary from warm to cool light.

How to position the light source depends on the type of light source, the thickness of Lumino sheets and the form.

The distance between the light source and the Lumino sheet should be kept above 100mm.

Kerrock Lumino products should not be exposed to direct sunlight.

### Thermoforming

During the heating process, the Lumino sheets may change in colour nuances; therefore, thermoforming is not recommended.

## 15.2. KERROCK MARBLE EFFECT

Kerrock Marble effect is available in several standard Kerrock colours. The patterns are very close to the natural material, thereby offering new options for the expression of style. The marble effect is provided by sheets featuring random longitudinal streaks and natural, marble-like particles within its basic colour. These patterns of longitudinal streaks are never repeated on any of two sheets, so they cannot be joined without a visible seam. With the proper preparation of the sheets, however, the expectations of the consumer can be fulfilled.

Kerrock marble features a randomly oriented pattern; it is therefore necessary to check whether the connection of two sheets is better acceptable at a joint angle of 90° or 45°.

The best front edge effect is achieved by coupling the vertical edge and horizontal sheet at an angle of 45°. It is also recommended to integrate an incision for the final vertical edge at the rear. This allows the continuation and the natural flow of the pattern.

Due to the random patterns, also called veins, the implementation of details of joints depends on the judgement and creativity of the Kerrock processor. With those faults in joints, edges and endings becoming more visible, the acceptability of the marble effect-featuring product for the final customer can be at risk.

### 15.3. KERROCK LUMINACO EFFECT

Luminaco and Luminaco S Effect is available in several Kerrock standard colours. Luminaco Effect signifies the patterns containing a mixture of the original terrazzo effect and translucent particles. Besides translucent particles, Luminaco S also contains hologram particles (glitter). Luminaco sheets are suitable for claddings and surfaces not exposed to abrasion and external impact.

Kerrock Luminaco sheets are processed in the same way as any other Kerrock sheets. All procedures remain more or less the same.

Luminaco sheets contain non-thermoplastic and non-UV-resistant translucent particles.

When heated, these particles change their colour and tend to crack, this is why Luminaco is unsuitable for either thermoforming or outdoor use.

NOTE

### 15.4. KERROCK ES - EASY SHAPING

Kerrock ES sheets are especially suitable for thermoforming smaller radii and allow for deeper traction in thermoforming products (washbasins etc.). Minimum radius with a 12mm board is R30mm, which is a significantly smaller radius than with standard Kerrock sheets.

The other processing operations are the same as for monochrome Kerrock sheets.

However, Kerrock ES does not have a B-s1, d0 class regarding reaction to fire.

Kerrock ES sheets are made in white colour ES 112.

### 15.5. Kerrock MF (MED Certificate)

Kerrock MF sheets have an MED Certificate (Marine Equipment Directive). They have improved fire resistance or fire safety according in comparison to standard Kerrock sheets.

While thermoforming of Kerrock MF sheets is limited and not recommended, the other processing operations are the same as for standard Kerrock sheets.

Kerrock MF sheets are manufactured in a thickness of 12mm and in MF 178 colour shade, and for larger orders (200m<sup>2</sup> and over) also in other special UNI colours.

Equipment with a MED certificates can be used on ships.



## 16. TRAINING

With the purpose of ensuring the highest possible quality of products to buyers of Kerrock material, Kolpa, d.d., also provides regular training and update on new features. The standard training programme includes introduction of technical and technological features of material, treatment theory, and practical presentation. Dates for courses are published on our web site [www.kolpa.si](http://www.kolpa.si) and take place on Kolpa, d.d., premises.

### ADVICE

For any additional information, you can also refer to the Kolpa, d.d., technical service in Metlika.



## 17. IMPORTANT!

When taking over sheets check the quality of Kerrock sheets and make sure to store them properly. Before starting work, warm Kerrock sheets to  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ .

Before cutting sheets, check their colour suitability. Perform test gluing. For every completed piece of work with Kerrock it is important to use sheets of the same batch in order to ensure equal colour shades.

For various applications we must use only corresponding sheet thicknesses:

- 6mm only for vertical cladding
- 8mm for bathroom environments
- 12mm for kitchen and table sheets, and other horizontal surfaces
- 18mm for self-standing sheets

All edges and angles of cuts must be smooth and rounded (cuts and cuttings with vertical cutter makes edges of cuts smooth and almost tension-free).

It is important to ensure cooling or equal temperature throughout the entire thickness of the Kerrock in order to prevent any deformities from occurring (batten support).

It is required to ensure the possibility of expansion of Kerrock (dilatation approx. 0.05mm per 1m of length under changed temperature conditions  $1^{\circ}\text{C}$ ).

Gluing Kerrock with other types of materials must always be done with elastic adhesives. We must isolate all elements which emit heat and are installed into working surfaces made of Kerrock (in stoves, dishwashers).

All poorly dimensioned places on Kerrock products should be additionally reinforced (on cuts for sinks, on cuts for stoves).

In order to prevent any bending or tensions in material make sure that elements on which Kerrock sheets are placed are of exactly the same height before installation takes place. Kerrock must lie flat.

All work with Kerrock must be performed on corresponding machines, with appropriate tools and with high quality blades, followed by very precise, consistent work.

Glued joints with Marble Effect are visible.

**INSTRUCTIONS FOR TREATMENT OF KERROCK ARE PREPARED ON THE BASIS OF THE KNOWLEDGE AND EXPERIENCE WE HAVE GAINED IN THE COURSE OF ITS TREATMENT.**

**THE INSTRUCTIONS ARE INTENDED FOR USE BY PROFESSIONAL KERROCK PROCESSORS WITH BASIC KNOWLEDGE OF COMPOSITE MATERIAL PROCESSING AND ARE FULLY RESPONSIBLE FOR END RESULTS AS A CONSEQUENCE OF UNDERSTANDING OF THESE INSTRUCTIONS.**

**INSTRUCTIONS DO NOT REPRESENT A LICENCE AND THEIR PURPOSE IS NOT TO BREACH ANY EXISTING PATENT RIGHTS.**

**WARRANTY FOR MATERIAL IS VALID ONLY IF TREATMENT INSTRUCTIONS ARE DULY OBSERVED.**

## 18. TECHNICAL DATA

CHARACTERISTICS	VALUE	METHOD
VOLUME MASS	1,680-1,750kg/m <sup>3</sup>	SIST EN ISO 1183-1 Method A
FLEXURAL MODULUS	8,800-9,800Mpa	SIST EN ISO 178
FLEXURAL STRENGTH	50-71Mpa	SIST EN ISO 178
TENSILE STRENGTH	29-53Mpa	SIST EN ISO 527-1
ELONGATION AT BREAK	0.50-0.90%	SIST EN ISO 527-1
TOUGHNESS	3.0-5.5kJ/m <sup>2</sup>	SIST EN ISO 179-1
HARDNESS (Barcol)	58-64	SIST EN 59
LINEAR EXPANSION COEFFICIENT	3.7 x 10 <sup>-5</sup> K <sup>-1</sup>	α (-20°C to +50°C)
ABSORPTION (after 24 hours)	0.03%	SIST EN ISO 62 Method 1
RESISTANCE TO THE ACTION OF WATER VAPOUR (1 hour)	level 4 - small change in shine, only visible under certain angles	SIST EN 438-2
RESISTANCE TO THE ACTION OF HOT VESSELS	level 4 - small change in shine, only visible under certain angles	SIST EN 438-2
RESISTANCE TO THE ACTION OF BURNING CIGARETTE	Level 4 - insignificant change in shine, only visible under certain angles	SIST EN 438-2
RESISTANCE TO ATMOSPHERIC AGENTS	no change	2-year outdoor exposure
CLASSIFICATION OF MATERIAL RESPONSE TO FIRE	B-s1, d0	SIST EN 13501-1
SURFACE RESISTIVITY	2.0 x 10 <sup>11</sup> -2.0 x 10 <sup>12</sup> Ω	DIN VDE 0303-3 IEC 93
SPECIFIC VISCOSITY RESISTIVITY	7.9 x 10 <sup>13</sup> -1.2 x 10 <sup>14</sup> Ω cm	DIN VDE 0303-3 IEC 93
RESISTANCE TO TRACKING CURRENTS	CTI 600 M	DIN VDE 0303-1 IEC 112
RELATIVE DIELECTRIC CONSTANT (Er)	4.5	DIN VDE 0303-4 IEC 250
DIELECTRIC LOSS FACTOR tg at MHz	2.8 x 10 <sup>-3</sup>	DIN VDE 0303-4 IEC 250
HARMLESSNESS TO HEALTH	compliant with	Article 3 of the Regulation of the European Parliament and Council (EC) No. 1935/2004 on the materials and articles intended to come into contact with foodstuffs

The data in not applicable to ES and MF Kerrock sheets

01

**3600 x 760 mm** (2.74 m<sup>2</sup>)

sheet Thickness (mm)	UNI	GRANIT	TERRAZZO	MIDNIGHT BLACK	METALIC	EASY SHAPING	KERROCK MF	LUMINO	LUMINACO	LUMINACOS	MARBLE
3mm	•	-	-	-	-	-	-	-	-	-	-
6mm	•	•	-	-	•	-	-	•	-	-	-
8mm	•	•	-	-	•	-	-	•	-	-	-
12mm	•	•	•	•	•	•	•	•	•	•	•
18mm	•	•	•	-	-	-	-	-	-	-	-

02

**3600 x 910mm** (3.28m<sup>2</sup>)\*

sheet Thickness (mm)	UNI	GRANIT	TERRAZZO	MIDNIGHT BLACK	METALIC	EASY SHAPING	KERROCK MF	LUMINO	LUMINACO	LUMINACOS	MARBLE
6mm	•	-	-	-	-	-	-	-	-	-	-

03

**3600 x 930mm** (3.35m<sup>2</sup>)\*

sheet Thickness (mm)	UNI	GRANIT	TERRAZZO	MIDNIGHT BLACK	METALIC	EASY SHAPING	KERROCK MF	LUMINO	LUMINACO	LUMINACOS	MARBLE
12mm	•	-	-	-	-	-	-	-	-	-	-

04

**3600 x 1350mm** (4.86m<sup>2</sup>)

sheet Thickness (mm)	UNI	GRANIT	TERRAZZO	MIDNIGHT BLACK	METALIC	EASY SHAPING	KERROCK MF	LUMINO	LUMINACO	LUMINACOS	MARBLE
6mm	•	•	-	-	•	-	-	-	-	-	-
8mm	•	•	-	-	•	-	-	-	-	-	-
12mm	•	•	•	-	•	-	-	-	-	-	-



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