

RAW STONES

RAW STONES PRODUCT INFORMATION:

RAW Stones originates from the search for new possibilities for authentic and unique characteristic floors. A unique production process has been developed for this purpose within RAW Stones. This allows you to bring those characteristic Mediterranean streets with that robust look into your home or business space.

RAW Stones offers the ideal combination of a floor with the appearance of original natural stones, but with the advantages of a modern, contemporary floor. A RAW Stones floor brings warmth and atmosphere into every space.

WHAT MAKES RAW STONES SO UNIQUE?

The composition consists of natural materials, and this ensures a very durable floor that you can enjoy for many years. Furthermore, RAW Stones floors are very easy to maintain and particularly suitable for commercial spaces. Thanks to a minimum floor thickness, the use of underfloor heating is also possible. Especially because the composition of RAW Stones conducts heat in an excellent way.

RAW Stones can be supplied with a special coating, making the floor ideal for use in bathrooms and wellness areas. Because the product process is completely in-house, custom work is provided so that the floor is completely tailored to your wishes. This way you get a unique floor with a characteristic and warm appearance in your home or commercial space.

RAW Stones are available in the types Abbey – Abbey XXL – Terpstra – Waaltjes - Triple – Trapist – Limbo's – MAXX and Abbey Exterior.

Terpstra Stones – Waaltjes – MAXX and Limbo's:

Terpstra's > about 40 pieces per sqm.

Waaltjes > about 90 pieces per sqm.

MAXX > about 28 pieces per sqm.

Limbo's > about 90 pieces per sqm.

Above tiles are supplied in plastic crates and one crate contains approx. 2m². We charge €5.50 for each crate ex VAT.

25kg tile adhesive - supplied by us - is required to apply 8m², purchase per whole packaging units only.

25kg grout - supplied by us - is required to insert 8m², purchase per whole packaging units only.

1ltr primer - supplied by us - is required as pre-treatment for 10m², purchase per whole packaging units only.

1ltr RAW Stones Protector - supplied by us - is required for 10m², purchase per whole packaging units only.

Protector needs to be applied double layered: first before adding the grout, and the second time after grouting the tiles.

Abbey - Abbey XXL -- Triple - Trapist:

25kg tile adhesive - supplied by us - is required to apply 5m², purchase per whole packaging units only.

25kg grout - supplied by us - is required to insert 20m², purchase per whole packaging units only.

1ltr primer - supplied by us - is required as pre-treatment for 10m², purchase per whole packaging units only.

1ltr RAW Stones Protector - supplied by us - is required for 10m², purchase per whole packaging units only.

Protector needs to be applied double layer, first before adding the grout, and the second time after grouting the tiles.

RAW Stones are supplied in a thickness of 0.8 till 1.0 cm.

RAW Stones (except Limbo's and Abbey Exterior) are delivered in the colours chosen by you. The Limbo's and Abbey Exterior are always supplied in a variation of all 7 colours of our range.

Our range consists of the following seven colors: **Concrete – Mud – Clay – Volcano – Fossil – Mineral - Thunder.**

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- **Cutting loss:**
Terpstra - Waaltjes – MAXX and Limbo's have a standard cutting loss of 5%. Waaltjes laid in a herringbone pattern 10%. The cutting loss for the Abbey – Abbey XXL - Triple and Trapist this is 10%.
- **Delivery itself:**
RAW Stones orders will only be accepted per whole square meters and Terpstra, Waaltjes, MAXX only per even square meters, minimum quantity per colour is 2m2 for these tiles. The Limbo's will only be supplied in a fixed colour mix, just like the Abbey Exterior.
- RAW Stones can never be held responsible for the (quality) of the sub floor that our tiles are processed on.
- Always hand over the RAW Stones checklist and floor heating protocol when placing an order. The latter is a guideline, we always advise to request the heating protocol from the supplier of the underfloor heating.
- More product information? Ask your dealer.

When an order is placed, please make sure you always hand over the RAW Stones checklist and floor heating protocol.

RAW Stones is a cement bonded product supplemented with epoxies, colour pigments, fibre and other natural commodities. RAW Stones should be considered and treated as a natural stone. This means that it is a porous product and stains can occur. Cracks that might occur in your RAW Stones floor are in many cases caused by tension in the underfloor. In most cases this is the result of not following the processing steps properly. Examined cases so far have resulted in the outcome that most cracks appeared because the subfloor did not have sufficient time to dry or because the floor heating protocol was not carried out properly. Horizontal cracks are best prevented by placing decoupling membranes. The tiler will advise you while examining the floor. Cracks can be grouted and in the most extreme case the RAW Stone tile can be replaced. In the case of cracks that arise for whatever reason, we recommend that you always let 4 seasons pass before repairing them. Vertical cracks have often to do with tension in the subfloor and show up at constrictions. Consider, for example, the transition from the hall to living room. These cracks are very difficult prevent in advance, and even a tiler will confirm that it is nearly impossible to avoid any possible cracks due to tension in subfloors. The good news is thought, that in many occasions, cracks can be re-joined although in extreme cases the tile is best replaced. Possible lines that appear while mopping the floor, can be considered as normal. These lines disappear once the floor has dried. It is mainly because of the strength of the product, that small lines can appear. We offer a mineral product with a compact, and therefore very strong, internal structure that can cause crackle lines that only show themselves when mopping the floor

RAW Stones works exclusively with natural pigments, making colours more intense. RAW Stones can never be held liable for colour deviations resulting from the mineral, natural, compositions of its products.

Important, rating the subfloor

To have an optimal final result, it is of great importance that the subfloor is in good condition. If there is a new poured floor, we advise to have the subfloor examined by the person/company responsible for this new floor. On arrival, we assume that your floor is suitable to start on. RAW Stones can never be held responsible for the subfloor that is laid on.

- New construction (substrate is in most cases screed floor). The drying process must be handled exactly as described.
Guideline -> 1cm thickness needs a drying period of 1 week, with a minimum of 28 days. The 28 day drying period is specifically when the screed floor is 4cm or less. In case floor heating is present, you must carry out the heating protocol. Before placing a new poured floor we recommend to use a fibre reinforcement composition.
- Tile over tile. You need to use a correct type of primer to ensure a decent attachment.

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- **Processing materials:**
- **Tile adhesive:** based on substrate and space the right type of tile adhesive must be processed.
- **Grout:** the colour used is always silver grey.
- **Primer:** based on substrate and space, we supply a primer for both applications.
- **Protector:** Depending on the applicability of the area the correct type of protector / sealer will be advised.

CHECKLIST

***Our RAW Stones need a stable, vibration-free and clean surface that has hardened enough.
Below mentioned points need specific attention:***

- **What kind of subfloor are we dealing with?**
 Existing cement screed floor New cement screed floor
 Existing (tile) floor Other, namely
- **What is the composition of the surface (only applicable for new subfloors). Be aware, RAW Stones cannot be held responsible for the (quality) of any subfloor on which our tiles are processed.**
 Sand cement screed with fibre reinforced cement (is **preferred**)
 Other type of reinforced products
 Other, namely
- **Are there any expansion joints in the subfloor? Expansion joints are often made in transitions from new to old(er) cement subfloors or on larger surfaces and especially to cope with workings in a subfloor.**
 Yes No
- **Is there already floor heating present (we kindly refer to our heating up protocol)**
 Yes No
- **In case there is a new cement floor present:**
 - When was the floor installed?
 - How many centimetres (in height) has been applied?
This in connection to the minimum drying period of 1 cm a week with a cement floor of more than 4 cm thickness. Below a thickness of 4 cm the floor needs at least 28 days to dry. RAW Stones can only be applied on a cement surface with a remaining moisture percentage of at least 1.5%. Anhydrite < 0,5%.
- **Is there any floor heating present? (we kindly refer to our heating protocol).**
 Yes No
 - In case new floor heating has been applied, has this already been heated and cooled down a couple of times? (we kindly refer to our heating protocol).
 Yes No
 - If not, when will this start?
 - A heating protocol **must** be completed at least 1x, but preferably several times before the floor is processed.
- **When delivering your order, are there any kind of obstacles the transporter need to be aware of, such as for example a dirt road? Can your order be delivered without any barriers and on the ground floor?**
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Can your order be unloaded by a lorry, making use of a simple pallet jack

Yes

No

- **Is your order being delivered on the ground floor?**

Yes

No

- **In case the tiles are connected to another floor in the room, you will need a height of at least 12mm to place the tiles and tile adhesive.**
- **The tiles MUST be stored dry, covered and frost free after delivery. Covered means that the tiles must be placed inside, and this of course also applies to the delivered material. In damp and cold periods, preferably 48 hrs, but at least 24 hrs before processing, the tiles must be placed inside in a heated room, ideally the room where they will be processed with some space between them, so that they can breathe and moisture can evaporate as much as possible. The packaging must be removed after the tiles have been delivered, and the tiles should be taken out of the crate (vertically lifted!) and placed inside. As mentioned before, the tiles must be able to breathe. This does not apply for your smaller tiles, such as the Terpstra, Waaltjes or MAXX.**
- **If our tiles are installed on an existing tile floor, it is very important that these tiles are intact and fixed. You can check this by tapping on the existing tile floor. Should there be tiles that sound hollow or tinny, there is no good adhesion and thus a problem that needs to be solved first. This means that the existing tile floor must be properly restored first, in order to create a decent, stable subfloor to proceed our tiles on.**
- **Please supply this checklist always together with the floor heating protocol to your builder, in case you have one involved in the building process. RAW Stones can never be held responsible for the quality of the subfloor the tiles need to be placed on.**
- **If there is a floor heating we certainly recommend to get in touch with your supplier / installer, so that they can provide you the heating protocol that suits your type of floor heating. The protocol we supply is just a 'standard' guideline that is not necessarily correct for your floor heating.**

PROTOCOL FLOOR HEATING

The protocol below is a guideline, we always recommend requesting the heating protocol from the supplier of the underfloor heating. This protocol can be followed at least once after an average of 28 days after laying the subfloor before the RAW Stones are going to be laid on it. There should preferably be 2 days between heating and cooling keeping the temperature at 40°C during these 2 days. The protocol can then be continued according to the steps below.

This protocol applies to the following situations:

- When there is an existing floor heating with tiles on it, the RAW Stones then go over the existing tiles.
- When there is only an existing floor heating without tiles on it but where there is a newly poured underfloor (the RAW Stones go over it immediately).
- When there is a new underfloor with underfloor heating.
- Once the floor has been laid, the firing up protocol must be repeated after 28 days. This applies to EVERY situation, so even when there is an existing floor heating system on which our tiles are laid. It goes without saying that this firing up protocol also takes at least 28 days.

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PROCESSING PROTOCOL:

Example cycle, based on 15 °C ambient temperature for the protocol to be used.

PAY ATTENTION:

Place a thermometer on the floor where the firing and cooling protocol is started, so that the surface temperature of the floor can be closely monitored. If the surface of the screed has reached a temperature of 31 °C, the water temperature should NOT be raised further and the cooling cycle must be started immediately.

HEATING UP PROTOCOL:

day 1: water temperature 20 °C
day 2: 25 °C
day 3: 30 °C
day 4: 35 °C
day 5: 40 °C
day 6: 40 °C

COOLING PROTOCOL:

day 7: 35 °C
day 8: 30 °C
day 9: 25 °C
day 10: 20 °C
day 11: repeat or end

Preferably restart the procedure and repeat it several times. If - given the available time - this is not possible, then start using the installation. The floor heating can be put back into operation at least four weeks after the RAW Stones have been installed. This firing up and cooling down protocol should preferably be carried out several times before a floor covering or finishing (plastic floor, tiles, tiles, parquet, laminate, marmoleum, etc.) is applied.

Under floor heating in this firing and cooling protocol is understood to mean a hot water pipe that is included in a floor. The floor must be at least 25mm thick above the water pipe.

IMPORTANT: this protocol is a guideline. Always inquire with the supplier of your underfloor heating about their heating protocol.

In screeds that have underfloor heating, cracks can occur due to thermal changes in length. To limit that risk as much as possible, it is necessary to bring the floor heating up to temperature slowly and regularly. It is advisable to use the firing and cooling protocol below for this.

A heating and cooling protocol for underfloor heating is based on the water temperature of the heating installation and not on any thermostat temperature in the room concerned. It is wise to continue the process until the water has reached a temperature of 40°C at most. Generally speaking, the water may not become warmer than a maximum of 40°C.

Installation companies sometimes indicate 55°C as the maximum temperature. However, this results in a considerably increased risk of cracks and detachment. If it is not necessary to maintain 55°C, it is advisable to adjust the firing protocol to 40°C. Certainly not higher than 55°C. The risk of damage increases enormously!

It is also important that the screed is approximately at final strength. This means that cement-bound screeds are preferably not heated within 28 days. For calcium sulphate bonded screeds, this may happen a little earlier, depending on the mortar quality. Calcium sulphate has a higher internal flexural strength.

How much earlier is difficult to indicate and is entirely dependent on the circumstances under which the floor is dried. As a rule of thumb, the calcium sulphate floor must not contain more than 3% moisture by weight. This must be determined with a calcium carbide meter. *Please note*, there must be a maximum residual moisture percentage of <1.5% in cement screed floors. For calcium sulphate subfloors this is <0.5%.

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Note:

Cracks usually do not occur in the warm-up phase but in the cool-down phase. This phase is therefore actually more important than the heating phase, so the right pace must also be maintained when cooling down. Please note that RAW Stones is never responsible for the (quality) of the subfloor on which our tiles are applied.

THE FIRING UP AND COOLING DOWN PROTOCOL:

- Start with a water temperature that is 5°C higher than the ambient temperature of the relevant room. The water temperature must be read on the heating system.
- Increase the water temperature by 5°C every 24 hours (or longer), until the practically maximum water temperature of 40°C has been reached (see comments above).
- Keep the maximum water temperature stable at 40°C for at least 48 hours.
- Then lower the water temperature by 5°C every 24 hours, until the starting temperature is reached again. More and more often it happens that a floor heating system can also cool. With such a system it is important (especially in the summer at high temperatures) that the cooling cycle is continued until the minimum temperature on the heating and cooling unit is 15°C.
- If sufficient time is available, repeat this cycle several times.
- It is advisable to provide this firing / cooling protocol to the end user / consumer for the benefit of normal use after delivery. The firing up and cooling down protocol must also be after long term standstill of the underfloor heating.
- After the entire RAW Stones floor has been laid, you should certainly wait 4 weeks before switching on the floor heating.
- Please shut down the floor heating at least 48 hours before start placing the tiles. During the placing process also keep the floor heating down.

Laying instruction RAW STONES

Deliver and unpack of your RAW Stones

Once the RAW Stones are delivered at your place, the tiles must be stored dry, covered and frost-free after delivery. This, of course, also applies for the delivered material such as grout, adhesive, primer etc. The packaging must be removed after delivery and the tiles must be placed inside against the wall by size with some space between them as the larger tiles must be able to breathe. This does not apply for the Waaltjes, Terpstra or MAXX tiles, as these are small sized tiles.

In extreme weather conditions, you should place both the tiles, with material, in a heated room, preferably 48 hours, but at least 24 hours before you unpack and start laying the floor, so that everything can acclimatize. Once you start laying your RAW Stones floor, you can check the tiles before processing them for any specific damages. We always supply extra tiles, since transport can cause light damages. In the event you see any damaged tiles, you can use them perfectly for cutting pieces.

Before you, or your tile layer, will start laying the RAW Stones floor, we advise to mix the tiles and sizes with each other. By mixing the tiles from different crates you are ensured of a good spreading of the colour nuances. When you spread the RAW Stones decently, you are ensured of the best result. Be aware, always grab the tiles a little above the centre between your thumb and fingers and ensure you lift the tiles upright.

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Basic principles to lay RAW Stones

Before you start laying the RAW Stones floor, it is of great importance to clean the subfloor first. The subfloor needs to be clean, flat, stable, vibration free and absolutely sufficiently cured. In case of present floor heating, it is very important that it is turned off at least 48 hours before you start laying the floor. During the placing process also keep the floor heating down. Please ensure that everything is carried out in an optimal way, to avoid problems that could have been easily avoided. Please read carefully through our firing protocol before you start laying and ensure that all steps have been carried out as described.

When you, or your tile layer start laying the RAW Stones, it is of great importance to start only once you are ensured you are well prepared with the needed products / tools. It is important that the instructions on the delivered materials are carefully read before processing the floor in order to achieve a good result.

We supply the Botament D1 Speed primer as standard, this primer is a fast, multifunctional primer for the pre-treatment of absorbent and non-absorbent surfaces before applying the tile adhesive, but also fillers, plasters or paint inside and outside.

Placing the RAW Stones in the tile adhesive

Because RAW Stones only have a thickness of 0.8 – 1.0cm, and are as much as possible produced in equal thicknesses, they are excellent for bonding. The benefit is that you relatively don't need much height, because the tile adhesive under the RAW Stones is only a couple of millimetres (total thickness with tile approx. 1.2 - 1.3mm)

To apply the RAW Stones, we work with different tile adhesive thicknesses and thus glue combs. For completeness we give you an overview to show you what type of glue comb is used for what type of RAW Stone.

Depending on the substrate, the tiler must choose the hand glue-spreader to use. 15mm is most common for the ABBEY / TRIPLE / TRAPIST. Depending on the substrate, the tiler must choose the hand glue-spreader to use. 6-8mm is most common for the TERPSTRA / WAALTJES / MAXX and LIMBO tiles.

We also recommend that with the Abbey /Triple/ Tapist, both the substrate and tile are provided with glue, the so called 'buttering – floating' method.

With a double gluing (floating – buttering), the mortar adhesive is first spread on the surface / floor (floating) and then applied with a flat trowel or glue spreader on the backside of the tile (buttering – with a thickness of 3mm). Make sure that no film will form on the adhesive, due to rapid drying. That is, process quickly enough if applied. Finally, but just as important, press the tile firmly from the centre to the edges. This ensures that air between tile and adhesive can escape. Then, don't forget to press the corners of the tile itself to ensure sufficient adhesion. It is very important, that the glue strokes are all in the same direction, as this allows the air to escape from the tile while pressing it and isn't blocked.

The Botament M29 SPEED tile adhesive must be made smoothly and ripen for 5 minutes and make sure you mix well again before applying. This is also clearly described on the instructions on the adhesive packaging. When installing, keep in mind that a floor must be able to lose its tension, and thus should be laid completely free from the walls. The seams can be filled afterwards with a sealant to absorb any effect.

Dilatation

In case there is a dilatation in the subfloor (separation between building components to cope with the workings), this should be continued in the tile adhesive, and certainly in the RAW Stones floor as well. In short, dilatations may not be closed by tile adhesive or tiles itself. Also with transitions from floor to wall, there should be kept a separation of 5 till 10mm. This space can easily be made by placing a foam strip of 100x5mm (height x thickness). Recommended is to divide to surface as much as possible in squares or otherwise rectangles. Do this in courses of max. 50m² with interior floors. The ratio between length and width should never be larger than 1:2 with a maximal field length of 8 m1.

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Are you going to build new?

When you get a new construction project carried out, and you can choose for a specific type of subfloor, we advise to opt for a fibre-reinforcing cement. In addition, we recommend a double reinforcement mesh under the cement screed, as well as an intermediate layer of the cement screed. For the upper reinforcement mesh, always ensure that there is an overlap of at least 2 meshes. The height of the final RAW Stones will be 12-13mm including tile adhesive.

Take into account a minimal drying time of 1 week per 1 cm thickness of a freshly poured cement screed. In short, when your cement screed has a thickness of 6cm, it needs at least 6 weeks drying time before the RAW Stones floor can be placed. If the thickness of the floor is less than 4 cm a drying time of at least 28 days must be observed. In the case that floor heating is present, the firing protocol can be started after 4 weeks.

Read carefully through the firing protocol before you start and start well in time before the tiler comes. In the winter, carrying out a firing protocol naturally requires considerably more time than in the summer due to the low outside temperature and higher humidity. Following the firing protocol is extremely important to prevent any cracking of both the subfloor and tile floor as much as possible in the future.

Grouting the RAW Stones

RAW Stones need to be carefully joined with grout. Applying the grout, but especially removing the grout takes attention, reason why we advise to wash in the RAW Stones floor constantly per 2-3 m². Please note that you make small portions of grout and make use of a grout float. Sponge the tiles after the grout starts to stiffen, making use of a sponge float and use clean water regularly. PAY ATTENTION, RAW Stones floors have a so called 'open structure' because it is a mineral product, and therefore absorb the joint very quickly, so that it adheres quickly to the surface. RAW Stones must be processed with Botament Multi-Joint Base 3-30 mm silver grey.

Advise: We recommend that between gluing and grouting the floor, the first layer of RAW Stones protector have to be applied by spraying or rolling. The advantage of this is that the tile absorbs significantly less.

The protector must also be applied after the jointing. For the best result this should be done with a spray (weed pressure pump). PAY ATTENTION! the RAW Stones floor needs to be maintained with our protector and we recommend repeating this on average every 6 months. This can be tested by dropping a drop on the floor. If this drop continues to pearl (lie on the tile for a while) then the floor is still sufficiently equipped with our protector.

Maintenance RAW Stones floor

After the tiles have been inserted and fitted with the RAW Stones protector, you must not walk on the floor for 24 hours because of the drying of the glue and the joint. Once dried, you can mop your floor the RAW Stones cleaner after a couple of days. We recommend using 2 caps of cleaner per litre.

This cleaner offers the advantage that the protector is provided by and therefore offers harder protection.

If you wish to cover the floor after laying and jointing for any stains or damage during the renovation process, we recommend that you only use breathable covering fleece for natural stone. This membrane offers ideal protection for newly laid natural stone floors. The unique membrane, which consists of several layers on the top, ensures a correct moisture – regulating effect. This means that the moisture from both glue and joint that is in your RAW Stones floor can easily ventilate, while no spilled liquids that can penetrate at the top.

PAY ATTENTION! Covering with plastic or standard sheeting traps the moisture in your floor and can lead to permanent damage to your RAW Stones floor!

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Final points

Based on knowledge and experience we advise everyone to read our instructions carefully. If you have your floor installed by your tiler or yourself, it is very important to first place a test piece before finally bonding the RAW Stones.

When there are cold(er) weather conditions, we recommend postponing the processing of the floor, as this can have its negative effect on the processing, as well as the consumption of the material and most likely also the adhesion

Make sure the RAW Stones are sufficiently placed into the tile adhesive and take into account the grasping and laying of the tiles. In particular, the larger tiles must be grasped and relocated with some attention. When the tile is in place, carefully slide the tile back and forth in the adhesive for a good adhesion and a fully glued layer under the tile. The RAW Stones must be pressed and pushed by hand, NEVER use a hammer to check by knocking the tile if it sounds even. The main importance for a floor that is laid correctly, it must lie sufficiently in the glue, without there being any air between tile and glue. If the tile has a point that sounds hollow when you knock it (test with knuckles), this is a sign that there is not enough tile adhesive under it and the tile is insufficiently glued. The tile will crack at that point during use, so it is therefore advisable to take the tile out, and apply a thicker layer of adhesive before replacing the tile.

It often happens that there needs to be 'played' with the joint width. As a result, the joints are not equally wide in all places and this is not necessary at all. In fact, this is the charm of our handmade product. It is these small differences that give the floor much more character and a beautiful, authentic appearance.

IMPORTANT: it is only after applying the grout and cleaning the tiles, the floor really comes to its own and the colour nuances and authenticity will be much more visible. Rural charm at its best and a unique floor to be proud of!

PLEASE NOTE: *The processing advice from RAW Stones is only a guide for the correct application of our products. We cannot give any guarantee on floors when these are processed by a tiler trained by RAW Stones. Any complaints resulting from the processing of a RAW Stones floor by a third party will not be recognised by "RAW Stones".*

Maintenance instructions RAW STONES Protector & Cleaner

How does the Stones Protector work and what does it do?

By treating mineral materials with our **RAW Stones Protector** the substrate becomes resistant to the absorption of polluting liquids. In standard concrete, the total surface area of 1 m² of visible concrete consists of 50,000 m² of internal surface area. These are the pores that have an open connection to the outside to a depth of 3 mm. In the normal, unprotected state, these pores will actively attract liquids. The smaller the pores, the stronger the sucking effect. (A pore with a diameter of a few hundredths of a micron will exert a force equal to a few hundred bar). By using the **RAW Stones Protector** and **RAW Stones Cleaner** products, the surface tension of the mineral substrate is reduced in such a way that liquids are repelled, while contaminating liquids have little or no adhesion. **RAW Stones Protector** leaves the pores open to ensure that the surface can continue to breathe, leaving the natural drying process of your floor unchanged.

Maintenance

The protection of **RAW Stones Protector** works against all non-etching liquids. The treatment does not provide protection against stuck dirt that is caught or worn in the rough surface. Sweeping alone is not enough; the surface must be moistened to soak solid dirt particles and there must be enough water to dispose of these solid dirt particles. The rougher the surface, the more water will be needed. The substrate protected with **RAW Stones Protector** can be cleaned with hot water (60 ° C) and with standard floor cleaner. Cleaning with hot water works better than with cold water. Polished surfaces with a low absorption capacity can best be cleaned with a standard floor cleaner in warm water.

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After applying **RAW Stones Protector**, liquids will bead on the surface and give the surface a 'dry' appearance. Depending on the degree of wear, this sparkling effect will gradually decrease. However, the effectiveness of the protection will not decrease as a result. The internal protection remains unaffected by the operation of the **RAW Stones Protector** and is very long-lasting; after all, the internal surface is many times larger than the visible surface. Regular use of the special **RAW Stones Cleaner** ensures that the sparkling effect recovers on the surface, making cleaning easy. Unlike many other floor coating vapours **RAW Stones Protector** is open; therefore the pores are not closed. This allows liquids to penetrate the protected area under high pressure. Therefore, avoid cleaning with too much pressure. Prevent spilled polluting liquids from remaining on the surface for too long and preferably prevent them from drying up, leaving the residual solids present in the liquid on the protected surface.

Coffee, soft drinks, alcoholic beverages and fats should always be removed as quickly as possible with a cloth or white brush with hot, non-boiled, water. A white cloth with undiluted cleaner also be tried. Dab this on the spot and then leave the stain(s) for a while. This also applies if you choose to treat the stain(s) with warm water. If this does not happen within 24 hours, there is a chance that visible spots will remain. So respond in time to heavy pollution and increase the cleaning frequency in case of a high degree of pollution. Treat dried stains with **RAW Stones Cleaner**, following the warnings stated on the label. In all cases work in an area that is somewhat larger than the spot itself, preferably up to a natural limit; a threshold or the edges of the room.

Maintenance

Recovery of an existing RAW Stones Protector substrate

RAW Stones Protector will gradually become less effective due to exposure to UV and/or mechanical wear. The speed at which the effect of the impregnation decreases depends to a large extent on the floor load. Visibly, nothing will change on the surface, only during cleaning you will notice that certain stains are more difficult to remove. The solution for this is to give the floor extra protection with the **RAW Stones Cleaner**. By intensively cleaning the floor with warm water containing 2 caps of **RAW Stones Cleaner** on 1L water, followed by a drying period of a few hours, the operation of the **RAW Stones Protector** will remain intact. More information about the application of the **RAW Stones Cleaner** can be found on the relevant information sheets, which can be found on our website. Read it carefully before starting maintenance.

Finally: In case of doubt, ask us for advice, we are happy to help!

Technical description 2017

RAW Stones is a cement-bound product supplemented with epoxies, colour pigments, fibres and other natural resources. Due to the composition of the materials we can speak of a mineral product and RAW Stones must therefore be considered and treated as a natural stone. RAW Stones floors are very maintenance-friendly and thanks to a minimal floor thickness, the use of floor heating is also possible. The composition of RAW Stones conducts the heat in an excellent way.

RAW Stones Cleaner

RAW Stones Cleaner is a concentrated floor cleaner with a water-repellent effect after drying.

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Product information

RAW Stones Cleaner is an environmentally neutral product with a unique combination of natural fatty acids that respond to the calcium present in many stone or concrete floors to form a water-soluble and dirt-resistant barrier. This temporarily prevents water-borne dirt from penetrating into the concrete or natural stone surface, simplifying daily maintenance. The joints are also cleaned and protected by the product. Remove any wax present before using the soap. RAW Stones Cleaner does not need to be rinsed or polished. In addition, the vapour surface remains open and the appearance remains unchanged.

PRODUCT CHARACTERISTICS

Description	Concentrated floor cleaner with a water resistant effect after drying
Appearance	Red viscose fluid
Flashpoint	Not applicable
Viscosity	≥ 1500 CP
pH	8,5
Solubility	Nil
Lifespan	Shelf life 1 year after opening
Consumption	2 caps / 1L water
Drying time	Let the floor dry well before walking on it

Never step on the just mopped part and then onto the dry floor part; wet footsteps can remain visible after drying. RAW Stones Cleaner can be used daily on floors treated with RAW Stones Protector.

STORAGE

Shelf storage	2 years in unopened packaging
Storage	Dry, well ventilated, clean and on a dust free flat floor
Temperature	Product may NOT freeze. Ideal storage temp 5-30°C
Packaging	1 en 5 litre packaging

USAGE

For daily use and cleaning of RAW Stones;

Regular use	2 caps / 1L water
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EASY-TO-CLEAN

RAW Stones Cleaner is specially intended for maintenance of various natural stones, unglazed, terrazzo and concrete floors to protect against dirt and maintenance. RAW Stones Cleaner makes surfaces easy-to-clean, which means that dirt can be removed. We recommend regular cleaning. Safety data sheet available on request.

RAW Stones Protector

Permanent impregnation for (new) concrete and mineral surfaces.

RAW STONES

Product information protector

RAW Stones Protector is a water-based impregnator that is used on highly alkaline mineral surfaces, in particular for fresh concrete. After drying, it forms a permanent protection system with strong hydrophobic and oleo phobic properties. RAW Stones Protector forms a microscopic thin layer directly below the surface, making it completely invisible in most cases. After 24 hours it is completely dry and walkable. The repellent effect of RAW Stones Protector is fully effective after 7 days. RAW Stones Protector is composed of acrylic copolymers stabilized in water. It penetrates deep into the pores and reduces surface tension. As a result, dirt gets less adhesion and can easily be removed (Easy-to-Clean). Floors treated with RAW Stones Protector can be mopped the day after with RAW Stones cleaner.

PRODUCT CHARACTERISTICS

Description	One component, water based coating
Appearance	Low viscose liquid yellow-green clear liquid
Solvent	Water
Flashpoint	Not applicable, can give off harmful gases during combustion (CO / CO2)
Viscosity	1-2 m Only at 20°C
pH	8-9
Solubility in water	Completely
Vapor permeability	Vapor permeable
Lifespan coating	5 - 10 years, depending on weather condition and the degree of Mechanical wear of the substrate
VOC	<5% (m/m)
Consumption	3-8m ² /litre, less on a low porous substrate, to achieve saturation
Drying time	-2 hrs, depending on weather condition, fully effective after 7 days

STORAGE

Shelf life	2 years in unopened packaging
Storage	Dry, well ventilated, clean and dust free on a dry and flat floor
Stacking	Not more than 2 packages high on pallets, do not remove shrink film
Temp	Product may NOT freeze. Ideal storage temp 5-30°C
Packaging	1 and 5 litre packaging

USAGE

Shake well before use. Surface must be clean and wind-dry before application. Minimum processing temperature 5 ° C. Apply with spray, brush or roller. Application is always at least in one layer. Wet-in-wet application of 2nd layer is recommended for highly porous substrates. When using a spray gun, at low pressure (<4 bar), it is advisable to wear respiratory protection

EASY-TO-CLEAN

RAW Stones Protector is specially intended for newly laid concrete; this way, despite the high pH value, it can still be protected against dirt. RAW Stones Protector lowers surface tension and makes surfaces easy-to-clean, which means that dirt can be removed more easily. We recommend regular cleaning. A high pressure cleaner with hot water (max 80 ° C) and a lance with a flat jet nozzle can be used to remove dirt. Safety data sheet available on request.