

PRODUCT DATA SHEET

RECKLI artico[®] plastic & RECKLI artico[®] magnetic

GENERAL PRODUCT DESCRIPTION

RECKLI artico[®] sheets are sheets printed with a concrete retardant that allow the visualisation of designs, graphics, images or photos on the concrete surface. Based on the design, a concrete retardant is applied to either a plastic or magnetic sheet during the screen printing process. RECKLI artico[®] sheets are applied to the formwork in the prefabricated parts plant, and they bring about a time-delayed setting of the concrete on the printed sections. When rinsing out the surface, the cement skin is dissolved, exposing and the aggregate particles beneath. The rinse-out depth is approximately 1 millimetre. A chiaroscuro (light/dark) effect results from the contrast between the washed-out and smooth surfaces of the concrete. The desired design is visualised on the facade.

DESIGNS

Nearly any individual design, graphic, image or photo can be visualised on a concrete surface in two dimensions using this technique. In the case of images and photos, the design template is scanned in different pixels. To achieve an optimal result, these may vary depending on the design. The subsequent viewing distance also plays a significant role in terms of the size of the individual pixels, and this is always coordinated with the client if a contract is awarded.

PRINTING

A screen printing process is used.

Please note: The printing screen has to be disposed of after printing. If several concrete elements are to be produced with the same motif, or a „reserve sheet“ is required for peace of mind, then we recommend that you state the number of motif sheets required when placing the order. Otherwise, a new print screen would have to be produced and the set-up costs will have to be charged in each case.

MATERIAL PROPERTIES OF THE PLASTIC AND MAGNETIC SHEETS

The sheet can be either a plastic or magnetic sheet. The magnetic sheet is very easy to handle, particularly on a steel formwork. All sheets are delivered as a protected roll. They can be placed on the formwork easily (see the Application section).

The maximum dimensions for the individual sheet are 1.20 m x 2.70 m.

To produce larger designs or photos, it is of course possible to place several sheets next to each other on the formwork. These can be placed next to one another in a nearly seamless way because printing can be carried out consecutively.

The maximum printed area on the sheets is 2.70 m x 1.20 m. The sheets are always delivered with slightly oversized so that the form frame can be placed directly over the sheets. The oversizing is omitted in places where several sheets are placed together to form a larger overall motif.

SHEET THICKNESS

approx. 0.5 mm

FLEXIBILITY

At a temperature of 20 degrees centigrade, it can be rolled up into a roll of at least 10 cm in diameter.

TEMPERATURE RESISTANCE

minus 20 to plus 50 degrees centigrade

DURABILITY

1 year if properly stored

DISPOSAL

In accordance with the applicable regulations

STORAGE

For longer period of storage, we recommend that the sheets be removed from the packaging and rolled out flat and stored in a dry, clean, dust-free area where they can be protected from the sun. To prevent deformations, store the sheets on a smooth surface and do not place any objects on top of them. With magnetic sheets, please also make sure that the magnetic sides are not placed one on top of another.

ADDITIONAL INFORMATION ABOUT MAGNETIC SHEETS

Magnetic force of attraction

20 g/cm² with a thickness of 0.5 mm

INSTRUCTIONS FOR USE | APPLICATION

TEST ELEMENT

Before using RECKLI artico® sheets, we highly recommend that they be tested in the prefabricated parts plant under practical conditions. Various influences may affect the quality of the subsequent concrete elements. Conditions in a concrete lab differ from those in a practical setting and correspondingly affect the concrete surface. For test purposes, we are happy to supply you with samples measuring 60 cm x 60 cm.

CLEANING THE FORMWORK

The formworks should be clean and free from dust and grease. Residual oil and dust on the formwork must be removed beforehand. Larger dust and dirt particles may press through the sheet and become visible on the concrete surface.

Please note: Do not use any concrete release agents on the sheet.

CONCRETE

RECKLI artico® sheets have no special requirements in terms of the concrete. However, we also recommend that you always test the subsequent concrete formula before application to ensure that your concrete mix achieves the desired result on the surface.

The printed sections of the sheets bring about a time-delayed setting of the concrete. After rinsing out the concrete elements, the area beneath the washed-out cement level will be exposed revealing the aggregate. Therefore, please note that the consistency, size and colour of the aggregate will affect the appearance of the concrete element. A test in advance also helps to find the desired aggregate.

APPLYING THE SHEETS TO THE FORMWORK

Ensure that your hands are clean and dry when applying the RECKLI artico® sheets. If required, the sheets can be cut to the desired size using a cutter knife.

The sheets are usually supplied slightly oversized so that the form frame can be placed directly over the sheets. The oversizing is omitted in places where several sheets are pieced together to form a larger overall motif.

In some cases it may be advisable to remove any possible dust particles from the sheets beforehand using a dry, clean cloth. The magnetic sheet in particular attracts dust.

The sheet has to be placed in the formwork in such a way that the printed section is facing upwards, i.e. towards the concrete.

Please make sure that the sheet is laid flat onto the formwork and that no air pockets have formed beneath the sheets. Such air pockets can also directly affect the subsequent concrete image.

ADDITIONAL INSTRUCTIONS REGARDING THE USE OF MAGNETIC SHEETS

sheets should only be used with steel formworks. In the event that a magnetic sheet is applied incorrectly in some spots, always remove the sheet completely and then reapply it. Do not pull on the sheet until it is in the right position. Pulling sheets over the formwork can deform them.

Do not apply sheets to formworks that have been out in the sun for any length of time and have heated up.

Before applying the concrete, make sure the sheets are in their proper position. If several sheets are pieced together to form a larger overall motif, make sure that the right sheets are positioned next to one another to produce the desired motif. Also check the spots where the individual sheets intersect so that there is no overlapping or seams in the motif.

Ensure sufficient concrete thickness and make sure the reinforcement elements do not damage the sheets when they are inserted. We recommend hanging up the reinforcement so that the sheet is not damaged. The use of spacers may be visible in the subsequent concrete element. If spacers are to be used in spite of that, we highly recommend that they be tested beforehand.

APPLYING CONCRETE

Concrete should be poured onto the formwork with little separation, and to a maximum depth of 0.5 metres. An external vibrator should be used only once if the concrete is to be compressed.

DEMOULDING

Shortly after the concrete has hardened, on the following day, the elements have to be removed from the mould and washed out. Multiple elements used for the same object should always be poured with concrete and demoulded at the same time. Leaving the elements in the formwork for different periods of time will affect the colouring and the wash-out result.

WASHING OUT

During production planning, please note that the concrete elements should be washed out within two hours of demoulding.

Before washing out, the plastic sheet can be removed from the concrete element.

The concrete surface is washed out using a high-pressure cleaner. We recommend a pressure of between 100 and 150 bar. The distance should be at least two metres. Always use clean water (tap water). When rinsing out the elements, we recommend that you start in the top left-hand corner and move toward the right, and then continue working slowly downwards at the same pace until the entire element has been completely washed out. Make sure that all of the sections treated with the retardant have been properly washed out. Otherwise, spots or patches may occur in the concrete.

For optimum results, protect the concrete elements against bad weather during drying.

As additional protection for the elements, we recommend that they be impregnated with RECKLI OS-D surface protection.

IMPORTANT NOTE

Our products have been successfully tested under different practical conditions. All information and recommendations contained in this document are based on current information and to the best of our knowledge. Nevertheless, different conditions may also affect sheets differently. Therefore, this document can offer recommendations but should not be construed as a guarantee. Of course, you can always rely on our excellent technical support when carrying out your project.



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