SCHOMBURG GmbH & Co. KG
Aquafinstrasse 2–8
D-32760 Detmold - Germany
phone +49-5231-953-00
fax +49-5231-953-108
mail export@schomburg.de
web www.schomburg.de/en

SCHOMBURG Building Product Systems

Technical Data Sheet

CRISTALLFUGE

Art.-No. 2 04277

Joint mortar for natural stones

Properties:

- quick crystalline water bond
- provides protection against discolouring, when using sensitive materials which can suffer the affects caused by the stones own particles
- rapid hardening
- excellent jointing and washing properties
- smooth
- free from quartzsand, for jointing of sensitive surfaces
- diffusion open
- pigmented
- polymer modified
- cures against cracking
- for floor- and wall heating
- colours are adapted to the ESCOSIL-2000-ST system silicone

Areas of application:

CRISTALLFUGE is particularly suitable for the jointing of sensitive natural stones which tend to discolour such as lime stones, jurassic marble, Solnhofer plates, sensitive light crystalline marble, granite and similar. The processability, the stiffening property in the joint, the water retention capacity and the washability were adapted accordingly. The quick crystalline water bond avoids discolouring at the edges.
CRISTALLFUGE is suitable for joint widths upto 7 mm in interior and exterior areas, on walls and floors, both in dry and damp and wet rooms (bathrooms etc.)
Furthermore it is suitable for the jointing of ceramic material such as stone ware, fine stone ware and glass mosaic.

Technical Data:

Composition:	Special cement, mineralic aggregates and high-quality additives
Colours:	white, grey, pearl grey, pergamon, beige, anthrazite
Joint widths:	upto 7 mm
Pot life*):	approx. 30 min.
Application/ substrate temperature:	+5° C upto +25°C
Traffic*) after:	approx. 1 1/2 hours
Loadable *) after:	1 day at the earliest
Water demand:	1 1/4 – 1.45 (1.5 kg)
Consumption:	see table below
Cleaning:	in fresh condition with water
Bulk density:	approx. 1.1 - 1.2 kg/dm³
Fresh mortar density:	approx. 1.9 kg/dm³
Packaging:	5 kg bags
Storage:	in dry rooms approx. 6 months

*) the values refer to +20°C ambient temperature and at 65 % relative air humidity.

Table of consumption:

format (cm)	joint width (mm)	joint depth (mm)	consumption kg/10 m²
2 x 2	1.5	2,0	5.8
2 x 2	1.5	10	29.2
10 x 10	3.0	6	7.3
20 x 30	3.0	8	4.4
30 x 30	3.0	10	4.1
30 x 40	3	10	4.8
30 x 60	3	10	3.1
30 x 60	3	20	6.2
30 x 90	3	20	5.5

Surface preparation:

Scratch out joints after initial setting of the bedding mortar in sufficient depth. Subsequently clean the tile layer and left moist. The bedding mortar must be completely cured since joint discolouring can otherwise occur. Dampen strongly absorbing coverings with water evenly. The joint flanks must be clean and free from separating substances.
The time of jointing of tiles laid in thin bed mortar depends on the used thin bed mortar requiring approx.

CRISTALLFUGE

3 and 72 hours. For thick bed mortar, the mortar bed sufficiency relies upon the hardened and evenly dried surface. Do not joint on surfaces which have different temperatures caused by the influence of direct sun exposure for example.
The consistency of the joint mortar is to be laid, adapted by the absorbing capacity of the material and the substrate.

Product preparation:

1. 1. Mix CRISTALLFUGE only with clean water in a clean container. Fill 1 1/4 to 1 1/2 l of water into a container depending on the required consistency, then add 5 kg CRISTALLFUGE and mix until a homogenous smooth mass is achieved. We recommend to use a suitable mixer at approx. 300 – 500 rpm. After a maturing time of 2 minutes the joint mortar is mixed once again. In order to avoid discrepancies in the colourshade, the mix ratios are to be kept to the same level. Do not mix more joint mortar than is required for the application, keeping within the pot life of 30 minutes.
2. CRISTALLFUGE is filled in wall and floor areas using a jointing board, with slight pressure and placed diagonally so that the joint is completely filled, being carefully removed after use. After short intervals the procedure is to be repeated accordingly.
3. After the initial hardening of the joint mortar (tactile control) wash the outlines. After some minutes wash clean with a sponge board.
4. Protect expansion joints for the subsequent application of the elastic jointing with ESCOSIL-2000-ST. After initial hardening, scratch the mortar residues out by washing with a slightly moist sponge.
5. Potential formation of ceramic mortar (fog) are to be washed off after several hours using a sponge board with clean water. Do not use dry cloth for the cleaning as the rubbing of the dried joint mortar may lead to discolourisation of the fresh joint! Protect the fresh jointing against high temperatures, winds, rain or frost that may negatively influence the curing. In case of unsuitable weather conditions (low air humidity, draught air, wind) and strongly absorbing ceramics, the joint mortar will cure better when the joint diameter is treated with clean water (moistening with the sponge board). The washing water should be often replaced by clean water. For coverings with rough, profiled or porous surface as well as natural stones which are rough at the surface a test jointing should be carried out (the surface should probably be slightly moistened or primed with suitable material prior to the jointing). The time of the washing is depending on the material and the existing climate. After sufficient waiting time the surface is to be smoothened without washing the joints out.

Important advice:

- Joint mortar which has already hardened should not receive additional water or new mortar and be made workable again, otherwise an increased danger of colour discrepancies and insufficient strength development in the joint mortar is caused.
- Strong absorbing stones are to be moistened or primed with suitable material prior to jointing.
- Only use clean water and clean tools! For the jointing of floor surfaces in exterior areas we recommend the use of ASO-Flexfuge, provided the products own properties of the natural stone can be excluded (caused by discolouring due the stones own particles.)
- Clean the substrates thoroughly prior to jointing.
- Regarding the curing time of the adhesive and mortar! If the jointing is influenced too early by the uneven colours which may occur over the whole joint pattern.
- Pores or blister formations in the joint are not caused by the joint mortar according to earlier tests. The following basic conditions are caused by:
  1. high absorbing capacity of the natural stone or of the ceramic.
  2. high W/C value of the joint mortar
  3. entrapped air bubbles. As to a.m. points 1 and 2: stones with high density should not be moistened, stones with low density and high porosity and capillarity are to be moistened until saturation with the

CRISTALLFUGE

sponge board is achieved, then jointing is to be subsequently carried out. To point 3: In such cases of high mixing speeds or use of unsuitable mixer, air might be entrapped, in order to remove this, it is recommended to jolt the fresh mortar, the entrapped air will then escape visibly. A rounded, spiraled mixer has proven to be quite advantageous in application.

- Protect joints against the affect of quick drying, draught air or strong sun influence. The use of foils or repeated moistening of the joint might be helpful.
- Protect joints against rain and frost until thorough curing.
- Close joints between the single covering fields, fittings and pipe penetrations as well as corner and connection joints elastically with ESCOSIL-2000-ST.
- We recommend for the maintenance and cleaning of the jointed area, only the use of neutral cleaning agents. After cleaning the surface is to be rinsed off with clean water. Regard to an even absorption capacity of the substrate and the joint flanks.
- Irregular effects of moisture due to the construction underneath, the mortar bed, difference in temperature or covering material may lead to colour discrepancies in the joint pattern which do not affect the quality of the joint mortar and may level themselves by positive environmental conditions. We do not guarantee for differences in the colourshade. In case of high mechanical wear such as cleaning machines or chemical loads, we recommend the 2-component, highly-wearable epoxy resin joint ASODUR-EK 98, provided the product properties of the natural stone1 allows this application. Prior to the jointing of border finishes and expansion joints and to support the mortar structure, polystyrene or foam elements are secured. If etching is required to be carried out (taking into consideration the specific product properties of the natural stone), then the joints are to be wetted prior to etching and subsequently washed over with adequate water. Lightly coloured applications are only to be used in interior areas and for walled elements which can be better cleaned as when applied on exterior surfaces which can in both cases become dirty. Within the same area the material is only to be applied from the same production batch. To achieve optimal hydration of the cement, adequate moisture is to be provided. This is especially important for non-absorbing stone or tiles, therefore no moist depositries can be expected! Jointing of natural stone and cast stone tiles/slabs with respect to the effects caused by the specific product properties i.e.: decolorisation, if this does occur, it is advisable to carry out joint tests in advance! Protect surface areas which are not to be treated against the effects of CRISTALLFUGE.
- Keep out of reach of children!

Please adhere to the current European

Materials Safety Data Sheet (MSDS).

GISCODE: ZP1