Technical Data Sheet

Desalination compress

Properties

This desalination compress consists of a synergistic mixture of bentonite, sand, cellulose and expanded glass granulate. The action of the compress bases on capillarity. Drying of the compress induces the migration of salt containing pore water from the masonry / mortar into the compress, where the salts are fixed. Important is that the average pore size in the compress is smaller than in the substrate to be treated (se Fig. 1). The well-adjusted contents of the single components provide an easy processing, high stability and sufficient open porosity.
The product is free of cement and lime.

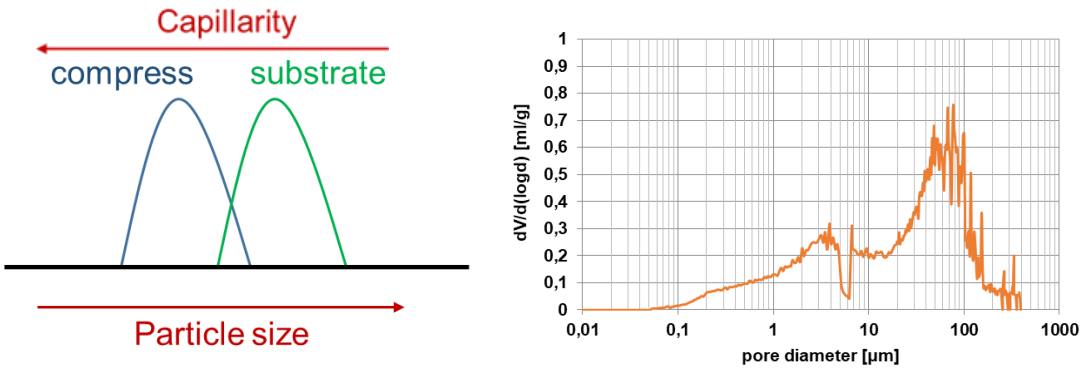

Figure 1: *Left: Schematic representation of the action of a desalination compress*
Right: Pore size distribution of the desalination compress.

Table 1: Properties

Product data:	
Delivery form	Paper bag, 15 kg
Appearance	Beige
Porosity	60%
Pore size distribution > 50%	10…100 µm
Bulk density	830.7 kg/m^3
Water vapour diffusion value µ	4.2
Shrinkage behaviour	1-2%

Application

The preparation of the final mixture is realized by mixing of the compress material with deionized water in a clean container. The dry compress material must be slowly added. Conventional mixing tools can be used. A mixing time of approximately 5 minutes is required. After that, the mixture can be applied by hand as well as by using a trowel or a plastering machine.
The surface must be clean and dust-free before applying the compress. In addition, the affected area should be slightly moistened with deionised water before the compress is applied.

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The drying of the compress should take place slowly. As soon as the compress is dry, it can be removed. **Attention!** Do not wet the compress again when it has dried! Cracks that occur during the drying process are not critical and do not influence the desalting process. It is recommended to carry out a salt analysis before and after the treatment and, if necessary, to repeat the application with as fresh desalting compresses. Detailed recommendations concerning the application of desalination compresses are found in the WTA-Merkblatt “Kompressenentsalzung No. 3-13-01/D”.

***Table 2:** Overall working instructions*

Working instructions:	
Mechanism of action	Drying compress
Water requirement	1.25 kg deionized water on 1 kg compress material
Consumption	approx. 10 kg/m^2, 1-2 cm layer thickness is recommended)
Processing	Temperature +5 to +25°C, in general, extreme situations should be avoided, i.e. fast drying (low salt removal) or too slow drying (danger of mildew formation)

Application example

Table 1: Analytical characterization of the aqueous extract of a plaster sample before and after desalination

	pH-value	Conductivity [mS/cm]	Cl^- [wt.-%]	SO_4^{2-} [wt.-%]	NO_3^- [wt.--%]
Plaster ahead of desalination	6.5	6.88	0.55	1.27	1.61
Plaster after desalination	6.9	1.34	0	0.14	0.01

Form of delivery / Storage

The desalination compress is supplied in 15 kg bags as a solid mixture and has to be stored under dry conditions. When unopened and dry, the material can be stored indefinitely. Open bags should be used quickly.

Safety

When processing desalination compresses, care must be taken to ensure good ventilation. Ideally, respiratory protection should also be worn, as dust may develop during the mixing process.

Please read our safety data sheet before use!

The above information has been compiled according to the latest state of development and application technology. Since application and processing are beyond our influence, no liability of the manufacturer can be derived from the contents of this Technical Data Sheet.

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