

WaterproofX[®] 100 FSI

Injection hose system for cementitious grouting

TECHNICAL DATASHEET

Revision date: 15.05.2019

PROPERTIES

WaterproofX[®] 100 FSI is a newly developed, one-piece injection hose with a big bore diameter. It is made from a specially formulated plastic, which features excellent usability characteristics. Following concreting, it functions as a channel for transporting the grouting material along the joint. Due to the extraordinary geometrical form this hose is perfect for injections in hollow spaces of roof ridges using mineral groutings.

The hose is equipped with discharge ports, equally spaced over its entire circumference. This gives the injection hose optimum grouting characteristics.

An optimization of the bore diameter by means of an enlargement results in an improvement when injecting abrasive grouting materials such as cementitious grouting.

APPLICATION

By injecting **WaterproofX[®] 100 FSI** hollow spaces can be filled with cementitious grouting after the poured concrete has cured. **WaterproofX[®] 100 FSI** is mainly used for the injection of roof ridges in tunnelling projects with ultrafine cement, cement lime or cementitious suspension.

TECHNICAL DATA

| | | |
|------------------------|--|--------------------------------|
| Profile: | hexagonal | |
| Colour: | blue transparent | |
| Material composition: | PVC-P special type for extrusion, conforms with ROHS, contains no substance of content according to SVHC-list, Phthalatfree production | |
| Diameter: | external: | 22 mm |
| | Internal: | 16 mm |
| Metre markings at: | 1m intervals | |
| Lengths micro-ports: | approx. 25 mm spacing intervals: approx. 40 mm | |
| Density (granulate) | 1,22 ± 0,03 g/cm ³ | (according to DIN EN ISO 1183) |
| Shore A-hardness (15s) | 81 ± 3 | (according to DIN 53505) |
| Tensile strength | ≥ 18 Mpa | (according to DIN 53455) |
| Elongation | ≥ 220% | (according to DIN 53455) |
| Cold Crack temperature | ≤ -20°C | (according to DIN EN 1876-2) |

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PACKAGING & STORAGE

Packaging unit:

coil: 60 m

pallet: 28 rolls per 60 m = 1.680 m

WaterproofX[®] 100 FSI has to be stored in a dry place and protected against mechanical damage.

INSTALLATION

The concrete surface must be even, free of loose particles and sharp-edged displacements. Before installing **WaterproofX[®] 100 FSI** ice coverings, standing water and cement sludge have to be removed.

The regular hose length is 8–12 m. **WaterproofX[®] 100 FSI** must lie flat on the surface of the first concrete section. Usually the injection hose is mechanically fixed to the tunnelling waterproofing membrane. **WaterproofX[®] 100 FSI** can also be fixed by **ankox self adhesive tape AquaproofX[®] 1** onto the tunnelling waterproofing membrane.

WaterproofX[®] 100 FSI is in its ideal position when centrally aligned. The distance of the **WaterproofX[®] 100 FSI** hose to the outer edge of the joint must be at least 10cm. At hose section joints, the two hoses are to overlap each other by 15cm and lie parallel one to another at a distance of 3-5 cm.

The packaging of the hose is easy and sure by fixing **ankox PVC-feeding hose FSI** directly inside the injection hose with superglue. **WaterproofX[®] 100 FSI** can be installed as well directly onto the formwork.

The connections have to be installed in such a way as to allow access at all times.

Injection:

WaterproofX[®] 100 FSI is injected after 28 days at the earliest.

Visible flaws along the construction joint are to be plugged with quick-dry cement before injecting.

Injection can be carried out in a number of ways:

⇒ Injection using **ankox PVC-feeding hose FSI**

⇒ Injection using a packer for cementitious grouting

1. Check the continuity of the hose by flushing with water or air.
2. The hose is injected via **ankox PVC-feeding hose FSI** until traces of the injected material are discharged from the open end. This open end is closed as soon as the injected material starts to flow freely (without air pockets).
3. The flow and extent of the injection material in the concrete joint can be monitored during the injection process by means of the injection pump's pressure gauge.

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4. The injection process continues until constant pressure has been reached. Constant pressure indicates that the concrete joint can take no more grouting material, thus signalling the end of the process.
5. Before injecting with mineral grout **WaterproofX[®] 100 FSI** is flushed with water.

ACCESSORIES

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|---------------|--|
| Item no 10153 | ankox PVC-feeding hose FSI 10x3mm |
| Item no 22139 | ankox self adhesive tape AquaproofX [®] 1 (50 mm) |

Note:

The information on this data sheet is based on our experience and given to the best of our knowledge, but is not legally binding. Recommendations, which are at variance with those stated in this data sheet, are only binding for us, when confirmed in writing. The manufacturer is not responsible for damages resulting from the misuse or incorrect storage of the product. For the accuracy of this information we are liable within the scope of our delivery and service conditions. Creation date: 05/2019