



K11 MATRYX

CEMENTITIOUS WATERPROOFING SYSTEM BY CRYSTALLISATION



ECO FRIENDLY



LOW CARBON FOOTPRINT



CRYSTALLINE TECHNOLOGY

DESCRIPTION

Davco K11 Matryx is a cementitious waterproofing system which protects and waterproof concrete structures by crystallisation. The active chemicals react with moisture in the concrete resulting in crystalline formation within the pores and capillary tracts of concrete, thus waterproofing the structure against penetration of water and other liquids from any direction. Davco K11 Matryx gives a strong and lasting waterproofing protection against dampness and ground water hydrostatic pressure.

USES

Recommended for interior and exterior below grade surfaces. Davco K11 Matryx gives protection against concrete decay and waterborne corrosive salts.

Can be use for negative waterproofing of concrete structure and on horizontal structural slabs against hydrostatic pressure as it provides strong resistance to impact and abrasion.

Area of Application

- Basements
- Wet areas
- Tunnels
- Underground garages
- Planter boxes

ADVANTAGES

Single component and easy to apply.

Can be used for positive or negative waterproofing of concrete structure.

Protection against rising dampness on ground slab.

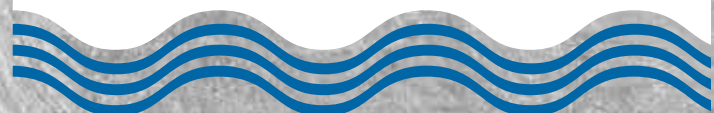
TECHNICAL DATA

Final Set		< 16 hours
Flexural Strength	7 days	6 N/mm ²
	28 days	8 N/mm ²
Compressive Strength	7 days	> 20 N/mm ²
	28 days	> 35 N/mm ²
Adhesion Strength		> 1.5 N/mm ²
Permeability test @ 0.5 kgf/cm ²	DIN-1048	< 8mm depth

Specifications are subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.



BUILDING TRUST





K11 MATRYX

SURFACE PREPARATION

The concrete surface must be clean and free from laitance, oils, grease, curing agents or other foreign matters. If surface is too smooth or highly contaminated with foreign particles, sand blast or acid etch surface before treatment.

Concrete surface must be sound. Rout out visible cracks exceeding 0.4mm wide, honeycombed pockets to depth of about 40mm and width of 25mm. Mix three parts of Davco K11 Matryx to one part water by weight, until stiff mortar consistency is achieved. Prime concrete surface with one slurry coat of Davco K11 Matryx before applying the mortar mix onto area to be patched, tightly sealing cavity.

Davco K11 Matryx must be applied on damp substrate only to ensure maximum chemical penetration. Pre-wet substrate until damp prior to application of Davco K11 Matryx. If concrete surfaces dries out before application, it must be re-wetted.

MIXING

Add Davco K11 Matryx to pail of clean water and mix with a mechanical mixer for 2 minutes until a homogeneous lump-free consistency is achieved. Use the following ratios for the different applications:

- + Spray: 8.25 - 9.0 L water
- + Brush: 7.25 - 8.0 L water
- + Trowel: 5.75 - 6.25 L water

Ensure there is no bleeding after mixing.

APPLICATION

Apply a minimum of 2 coats in perpendicular directions, using block brush, roller or spray. The second coat must be applied while the first coat is still green but sufficiently set so that it is not drawn off while applying the second coat. For trowel application, only one coat is required.

The mixed material must not be applied at temperature below 5°C or on frozen surface. At no instance should the total thickness exceed 5mm in a single application.

Davco K11 Matryx should never be applied on a dry surface so dampening of substrate is critical.

DRY SHAKE METHOD (NEGATIVE WATERPROOFING)

Sprinkle Davco K11 Matryx powder directly from the packaging after allowing concrete to achieve initial set. Sprinkle Davco K11 Matryx at the rate of 3 - 3.5kg/m² evenly and trowel to required finish or power float.

DRY SHAKE METHOD (POSITIVE WATERPROOFING)

Sprinkle Davco K11 Matryx powder directly from the packaging at the rate of 2kg/m² evenly onto the lean concrete substrate just before pouring of the concrete.

CURING

After Davco K11 Matryx coating has hardened, cure the treated surface with a light mist of clean water at regular intervals three times a day, for the initial two to three days. In extremely hot weather curing period may have to be extended to several days.

PROTECTION

Protection of Davco K11 Matryx is not obligatory. However if used on external areas, subjected to heavy rain, harsh sunlight or frost, the finished application should be protected for at least 24 hours.

PACKAGING

25kg bag.

SHELF LIFE

Shelf life of 12 months when stored in unopened bag in a cool dry elevated place.

COVERAGE

For Slurry coat / Brush application method, apply at the rate of 1.1kg/m²/0.7mm depending on the area of application, giving a total thickness of at least 1mm.

For trowel application method, apply at the rate of 2.2kg/m²/mm.

HEALTH AND SAFETY

Davco K11 Matryx is a cement based product and contains alkali which may cause dermatitis.

We recommend that PVC or similar gloves and safety goggles should be worn during handling. Refer to safety data sheet.

Disclaimer

The use of this product is beyond the manufacturer's control and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Specifications are subjected to changes without prior notice. Before application, customers and users are requested to check that they have the latest version of this document from our website www.sika.com.sg

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