

PRODUCT DESCRIPTION

PlekoProof CY51 is a one-component, deeply penetrative, crystalline waterproofing slurry designed for the long-term protection of concrete and cementitious substrates. Upon application, it reacts chemically with moisture and the by-products of cement hydration to form insoluble crystals within the pore structure of the concrete. This crystallization process blocks capillaries and hairline cracks, rendering the structure impermeable to water while maintaining breathability to water vapor. The reaction is reactivated in the presence of water, making the system permanently active against both positive and negative hydrostatic pressure. It is composed of hydraulic binders, selected aggregates, and special chemical additives. It is easy to use by just adding water, improving on-site quality control.

USES

PlekoProof CY51 is used for the waterproofing and long-term protection of concrete and masonry structures exposed to both positive and negative water pressure. It is particularly suitable for use in water tanks, reservoirs, sewage and water treatment facilities, swimming pools, tunnels, retaining walls, lift pits, balconies, concrete slabs, planter boxes, foundations, and basements. It is also ideal for wet areas such as toilets and bathrooms, as well as underground structures and construction joints where in-depth, self-healing waterproofing is required.

PACKAGING

25 kg in multiply paper bag.

COVERAGE

As slurry: 0.75–1.0 kg/m² per coat

As dry shake: 1.5–2.0 kg/m²

Minimum recommended: two coats

A 25 kg bag yields approx. 16–18 liters of slurry.

Manufacturer does not warrant square meter coverage, which can vary greatly according to application techniques and substrate roughness..

PROPERTIES

- **Penetrates deeply into concrete to seal pores and hairline cracks up to 1 mm**
- **Reacts chemically with free lime and moisture to form insoluble crystals**
- **Permanently active – reactivates upon future water contact**
- **Withstands both positive and negative hydrostatic pressure**
- **Vapor-permeable – allows substrate to “breathe”**
- **Enhances durability by protecting against waterborne contaminants**
- **Increases resistance to frost, weathering, aggressive groundwater, and salts**
- **Suitable for use in potable water structures (non-toxic, inorganic)**
- **Single component – just add water**
- **Environmentally friendly – non-flammable and solvent-free**

TECHNICAL DATA

Appearance	Free-flowing Grayish powder
Wet Specific Gravity (Kg/L ± 0.5)	2.00
Water Ratio	28-34%
Recoat Time @ 25°C	2-4 hrs
Foot Traffic @ 25°C	24 hrs
Adhesion Strength (N/mm ²) ASTM C321	>1
Water permeability Positive pressure Negative pressure	5 bar 1 bar
Vapor Permeability	High (breathable)
Toxicity	Non-Toxic

INSTALLATION

SUBSTRATE PREPARATION

Surface must be sound, clean, dry, free of bond-inhibiting materials such as paint, grease, oil, efflorescence, form release agents and curing compounds... Loose or hollow portions should be removed by mechanical treatment. Moisten slightly the substrate with clean water prior to application. Surface should appear damp with no water running.

Apply an angle fillet of 25mm X 25mm at all junctions between slabs and walls using PlekoMortar UM.

Water leaks must be stopped by using quick plugging mortar such as PlekoMortar Plug.

MIXING

Use a clean container free of all foreign substances for preparing and mixing material. Use a slow-speed drill and mixing paddle. Add 6.5–7.5 liters of water to a 25 kg bag, mixing thoroughly for at least 3 minutes until a homogenous, lump-free slurry is achieved. Do not add water once the mix has started to set.

APPLICATION

Apply PlekoProof CY51 using a stiff brush or spray equipment in two coats. The second coat should be applied after the first coat becomes touch dry (approx. 3–4 hours). Apply the second coat at a right angle to the first for maximum coverage.

In dry shake applications, broadcast the dry product evenly onto freshly placed concrete during the initial set, then trowel to finish..

CURING

Keep the applied surface damp for at least 5 days to allow for proper crystal development. Use damp hessian or breathable curing fabric, and avoid exposure to direct sunlight, frost, or high wind. Do not use curing compounds.

LIMITATIONS

Apply only to unfrozen surfaces above 4 °C (40°F). Maintain minimum 4 °C (40°F) ambient temperature for 24 hours after application. Protect from direct sunlight, wind and rain during application

Do not mix with any additive or product unless recommended by Pleko.

Pleko bears no responsibility for the defects due to the improper or non-recommended use of the product.

CLEANING

While still fresh, soluble in water. Clean all equipment with water immediately after use. After hardening, tools should be cleaned mechanically.

STORAGE

Store in cool, dry, well-ventilated area, protected from freeze, heat and direct sunlight and at a temperature between 4°C (40°F) and 38°C (100°F), in tightly sealed original container off the ground. Storage time must not exceed one year.

HEALTH AND SAFETY

Avoid contact with eyes and skin. Prevent inhalation of dust. Use appropriate protective equipment. In case of contact, rinse with clean water and seek medical attention if symptoms persist. Refer to the Safety Data Sheet (SDS) for detailed information.

The product is non-flammable

Attention

This product is intended for use by qualified professional contractors, as a component of a larger construction system and specification. It should be installed in accordance with given instructions and specifications. Information listed above reflects the criteria for our internal quality test and practical experience. Results depend on listed instructions and consumer skills and are therefore out of our responsibility whether expressed or implied. All values are valid for the product when dispatched from the plant. Technical data are generated under laboratory conditions, some variations are expected due to weather, site, and application conditions which are beyond the control of the manufacturer. We reserve the right to change any given specification without notice.