

Aquaflex KS-101

Capillary Crystalline Cementitious Waterproof Material

Product Description

KS-101 is cementitious waterproof material made by advanced equipment and produced from raw materials introduced, which is a powder material composed of Portland cement, a specially treated active compound and quartz sand.



Recommend Usage

The reference usage of 1mm thick coating is about 1.5kg/m²~1.7kg/m².

(Note: This data is calculated in a standard test environment and is for reference only. The actual usage depends on the actual situation on site)

Packaging

25kg/barrel, 25kg/bag

Storage And Transportation

- This product is a non-flammable and non-explosive material and can be transported by general means. During transportation, it should be protected from rain, sun exposure, freezing, and packaging damage;
- The product should be stored in a dry, cool place at 5°C~35°C, avoiding sun and rain;
- When the relative humidity is ≥85%, moisture-proof measures need to be taken;
- The product storage period is 12 months from the date of production.

Product Features

- It can be applied on both the upstream and downstream surfaces of concrete structures;
- Especially suitable for wet base construction;
- Permanent activity, can naturally heal fine cracks below 0.4mm;
- Protect steel bars and prevent them from corroding;
- It can protect the concrete structure from the corrosion of waste water, sea water and chemicals and solvents;
- Enhance the strength of the concrete structure and prevent the damage to the concrete caused by the freeze thaw cycle;
- Because of its unique permeability, there is no need to set up a protective layer after construction.

Technical Data Based For Reference

Implemented standard:GB18445-2025

NO	Item		Index
1	Outlook		Uniform without agglomerate
2	Water ratio/%		≤1.5
3	Fineness, 0.63mm residue on sieve/%		≤5
4	Chloride ion content/%		≤0.10
5	Application property	Add water	Easy to coat
		20 min	Easy to coat
6	Breaking strength/MPa,28d		≥2.8
7	Compressive strength/MPa, 28d		≥15.0
8	Wet-based adhesive strength/MPa,28d		≥1.0
9	Mortar impermeability	The impermeability pressure of coated mortar ^a /MPa, 28d	Report measured value
		The impermeability pressure ratio (with coating)/%, 28d≥	250
		The impermeability pressure of de-coated mortar ^a /MPa, 28d	Report measured value
		Impermeability pressure ratio (removal of coating)/%, 28d≥	175
10	Concrete impermeability	The impermeability pressure of coated mortar ^a /MPa, 28d	Report measured value
		The impermeability pressure ratio (with coating)/%, 28d	250
		The impermeability pressure of de-coated mortar ^a /MPa, 28d	Report measured value
		Impermeability pressure ratio (removal of coating)/%, 28d≥	175
		Secondary impermeability pressure of coated concrete/MPa, 56d≥	0.8
^a The 28d impermeability pressure of the reference mortar and reference concrete should be 0.4–0. +0.1 0MPa and listed in the product quality inspection report.			

Where To Use

- Waterproof and anti-seepage for various storage pools such as swimming pools, pools, marine aquariums, dams, reservoirs, etc. seepage treatment.
- Waterproof and anti-seepage in flooded environments such as basements, underground waterways, elevator shafts, balconies, and toilets.
- Road and bridge, tunnel, stadium, nuclear power plant, military facility, municipal engineering and pile head treatment waterproofing works.

Construction Procedures

Substrate Prepare

We should fix holes, crack, hollow substrate and remove oil, floating soil, sand etc. to make sure substrate is clean and smooth. After that we can moist substrate but no floating water on it.

Coating Prepare

We should put KS-101 powder into water slowly and using electric mixer to mix it (spin 350–450 times a min) for 3–5 minutes according to water–weight: powder–weight = 0.28–0.35: 1.

Construction Brush

We can brush coating at substrate smoothly with roller or brush in one direction but thickness layer should not be more than 0.3–0.5mm, after we finished the first layer we can start to brush second time and the third time, each time brushing should be 3–4 hours after previous one and brush direction should be vertical to form previous one, until the coating layer thickness match requirement.

Spray We can also spray coating for 2–3 time inside of brush, each time spray layer should be 0.3–0.5mm.

Curing After construction, we should spill water 3 times per day for 3–7 days on coating, if weather is dry we can put wet fabric on it.