

SpEC Armourtop

DRY SHAKE, MONOLITHIC SURFACE HARDENER FOR NEW CONCRETE FLOORS

DESCRIPTION

SpEC Armourtop is supplied in 25kg hermetically sealed polyethylene bags and consists of graded synthetic mineral aggregate blended with Ordinary Portland cement and plasticisers.

SpEC Armourtop is applied to plastic concrete and the resulting finished surface is extremely dense, abrasion resistant and hard-wearing. As the application of **SpEC Armourtop** results in the floor curing monolithically with the topping excessive shrinkage, cracking etc., is avoided.

The aggregate used, apart from being completely inert chemically, is exceptionally hard and is not prone to polishing.

TYPICAL USES

SpEC Armourtop can be used in any application where an uncoated concrete is required to provide high abrasion, skid and impact resistance.

It is particularly suited for heavy industrial wear.

ADVANTAGES

- Non-metallic aggregate
- No additions required - ready to use
- Extremely hand-wearing aggregate resulting in high resistance to abrasion and impact resistance
- Monolithic bond to host concrete
- Resistant to oils and greases

TECHNICAL DATA

Compressive strength

28 days 70N/mm²

Abrasion resistance Test data indicates that concrete floors treated with **SpEC Armourtop** exhibit an abrasion resistance 300% better than that exhibited by 40N/mm²

concrete on its own.

Hardness

When tested against the Mohs hardness scale, the synthetic aggregate used in **SpEC Armourtop** provided values in excess of 7.0.

Impact resistance

Testing in accordance with BS 8204 part 1: 1987 gave results 3.5 times better than those required of a screed designed to withstand heavy traffic.

APPLICATION

Preparation

It is essential that adequate planning of the application is made in advance and that sufficient material is laid out to meet the requirements of the application.

The base concrete slab should have a thickness not less than 80mm and the concrete mix design should be formulated as follows:

Water / cement ratio	< 0.50
Cement content/m ³	> 300kg
Slump	> 75mm
Air entrainment	< 2%

Vacuum dewatering should not be used.

Application

SpEC Armourtop should be applied at the rate of 5 to 7kg/m² depending on the degree of traffic anticipated (medium to heavy traffic respectively).

SpEC Armourtop must be applied as soon as the base concrete has reached the stage where light foot pressure leaves an indentation of around 5mm or as soon as it is practicable to apply the product

correctly without damaging the plastic surface of the base slab.

On large applications, it is essential that sufficient operatives are available to work at a controlled rate behind the concreting team

SpEC Armourtop is applied in two applications. The first application utilizes two thirds of the chosen application rate and is broadcast evenly across the surface but ensuring the material lands nearly vertically rather than spread horizontally. Once applied, the free water in the base concrete will slowly darken the applied material and once this stage is complete, wood floating of the surface can commence. Do not over-trowel at this stage.

The remaining one third of the material can now be applied and moisture allowed to combine with the material as before and wood floating of the surface can then be completed. Once the floor has attained a degree of stiffness at which light foot trafficking does not mark the surface, steel floating and/or power floating can progress.

CURING

SpEC Armourtop should be cured with a curing membrane such as **SpECcure AC**, which has a curing efficiency greater than 75% when tested to BS 7542: 1992 "Method of test for curing compounds for concrete".

Continuous polyethylene sheets taped at the edges is an acceptable alternative.

LIMITATIONS

SpEC Armourtop must not be used in floor areas which are likely to be exposed to acids or any other product which is known to attack Ordinary Portland cement concrete.

PACKAGING & YIELD

SpEC Armourtop is supplied in 25kg heat sealed polyethylene bags.

Medium duty	5kg/m ²
Heavy duty	7kg/m ²

STORAGE & SHELF LIFE

The shelf life of the product in sealed bags is typically in excess of twelve months.

Storage at high ambient temperatures or on high humidity environments may reduce the shelf life of the product.

HEALTH & SAFETY

SpEC Armourtop is alkaline in nature and in a moist environment may be harmful and irritating to the skin, eyes and respiratory system.

Wear dust mask, gloves and goggles during handling. Skin contact should be treated with soap and water.

Contact with eyes should be treated by rinsing well with copious amounts of water prior to obtaining medical advice.

FLAMMABILITY

SpEC Armourtop is non-flammable.

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