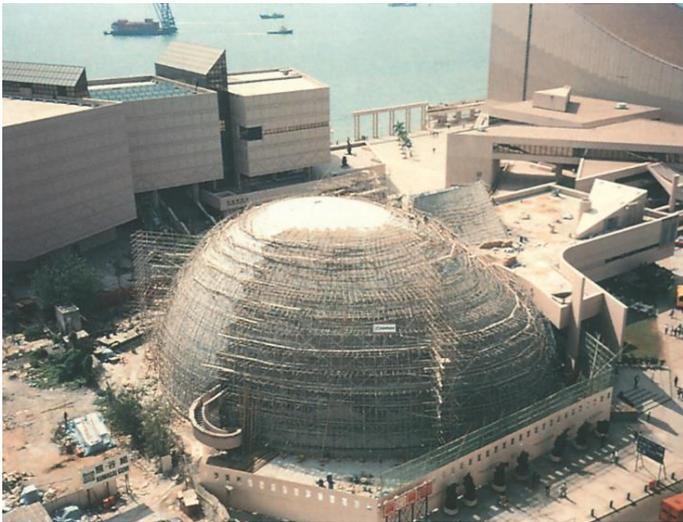


DESCRIPTION

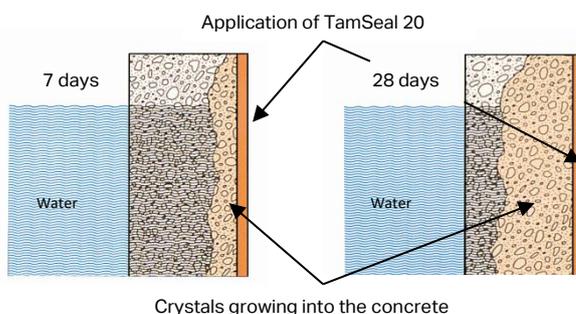


TamSeal 20 is a surface applied material which waterproofs and protects concrete in-depth. It provides a deep seal penetration and permanent protection against fresh and salt water under pressure. It consists of Ordinary Portland Cement, specially treated quartz sand and a compound of active chemicals.

When TamSeal 20 is applied to a concrete surface, the active chemicals combine with the free lime and moisture present in the capillary track, to form insoluble crystalline complexes. This is known as crystallisation process. Once the crystals have formed, they remain permanent. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress. However, the layer will still allow the passage of water vapour through the structure (i.e. the concrete will still be able to "breathe").

Further contact with water will reactivate the sealing process. Thus the lower depths of the concrete form an integral mass with the surface, which cannot be blown off by hydrostatic pressure. In addition to waterproofing the structure, TamSeal 20 protects concrete against seawater, wastewater, aggressive ground water and certain chemical solutions.

How TamSeal 20 works:



KEY BENEFITS

- > Can withstand up to 30 metres hydrostatic pressure
- > Complies with SS 375: 1994 and PUB approved
- > Can be applied both internally or externally
- > Excellent adhesion
- > Non-toxic
- > Durable - lasts as long as the concrete
- > Economical and simple to apply
- > Protects concrete and reinforcement against corrosive water borne substances
- > Crystalline action reactivated by contact with water, providing dormant additional protection

TYPICAL APPLICATIONS

- > Water tanks, portable water tanks and tower
- > Concrete slabs (floor / roof / balcony)
- > Tunnels and Foundations
- > Retaining walls
- > Construction joints
- > Dock gates & dams
- > Sewage treatment plants
- > Lift shaft
- > Reservoirs
- > Swimming pool

TECHNICAL DATA

TamSeal 20	
Appearance	Grey powder
Density	1.6
Pot life @ 25°C	20 minutes
Initial setting @ 25°C	60 minutes
Water permeability (BTD/TP/02/2002)	8.50×10^{-13}
Water penetration (DIN 1048 : Part 5: 1991)	< 10 mm
Tensile adhesion strength (BS EN 1015-12: 2000)	0.70 MPa
Potable water approval	PUB - Singapore

All technical data stated herein is based on tests carried out under laboratory conditions.

APPLICATION GUIDELINES

Surface Preparation

All concrete to be treated with TamSeal 20 must be clean and have an "open" capillary system. Remove laitance, dirt, grease etc. by means of high pressure water jetting, wet sandblasting or wire brushing.

Faulty concrete in the form of cracks, honeycombing, etc. must be chased out, coated with TamSeal 20.

Surfaces must be carefully pre-watered prior to the TamSeal 20 application. Dampen (no free standing water) the concrete surface with clean water prior to application.

Note: TamSeal 20 is not a decorative material.

Mixing

Pour water into a clean suitable mixing vessel, then gradually add the TamSeal 20 powder into the water while mixing with a low speed paddle mixer until consistency of thick oil paint is obtained.

Only mix suitable quantities that can be applied within 20 minutes and stir mixture frequently. If the mixture starts to set, do not remix with additional liquid, simply re-stir to restore workability. **Mixing Ratio: use 5 parts TamSeal 20 to 2 parts water by volume.**



Application Method

Slurry Consistency - Apply one or two coats (according to specification) of TamSeal 20 using a masonry brush or appropriate power spray equipment. When two coats are specified, apply the second coat whilst the first coat is still "green".

Dry Powder Consistency-(for horizontal surfaces only)

The specified amount of TamSeal 20 is distributed in powder form through a sieve and trowelled into the freshly placed

concrete once this has reached initial set (when you walk on the concrete you leave an imprint of approx 10 mm)

Post Treatment - Once the TamSeal 20 treatment has reached initial set, moist cured with a fine fog spray of water 2 - 3 times per day for three days. In hot or windy conditions it should be cured more frequently. During the curing period the TamSeal 20 treatment must be protected from rainfall, frost and water puddles.

Coverage

- > Concrete surfaces to be backfilled – one coat of TamSeal 20 at 0.75 kg/m² followed by one coat at 1 kg/m². Brush or spray applied.
- > Water retaining structures, internal concrete wall surfaces – two coats of TamSeal 20 each at 0.75 kg/m². Brush or spray applied.
- > Concrete slab (hardened concrete) – apply TamSeal 20 at 1.0 kg/m² in one slurry coat or dry sprinkle.
- > Concrete slab (fresh concrete) - trowel apply to concrete when it has reached initial set.
- > Construction joints - TamSeal 20 at 1.5 kg/m² applied in slurry or dry powder consistency immediately prior to placing the next lift / bay of concrete.
- > Binding concrete - apply TamSeal 20 at 1.2 kg/m² applied in a slurry or dry powder consistency immediately prior to placing the overlay concrete slab.

Note: Coverage rate may vary with substrate condition.

Dry Shake method

Sprinkle TamSeal 20 directly onto the concrete at the rate of 3 - 3.5 kg/m² evenly and trowel to required finish or power float.

Cleaning

Thoroughly clean all tools and equipment with water after use.

PACKAGING

TamSeal 20 is supplied in 20 kg pail. Packaging size may vary subject to local regulations and requirements.

STORAGE

TamSeal 20 should be stored at room temperature (min 4°C and max 30°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of up to six months can be expected.

HEALTH & SAFETY

TamSeal 20 should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.