

Integral Waterproofing by Crystallisation

DESCRIPTION



TamSeal Admix is a unique chemical treatment for waterproofing and protecting concrete. This admix is specially designed as a concrete additive at the time of batching and forms catalytic crystalline growth within the concrete, making it waterproof.

KEY BENEFITS

- > Maximizes waterproofing of concrete
- > Potable water certified
- > Will withstand extreme hydrostatic pressure > 7 bar
- > Exceptional durability at -20°C to 50°C
- > Reduces shrinkage and cracking
- > Protection of concrete against certain aggressive chemicals including chloride attack to steel reinforcing
- > Can seal static cracks up to 0.4 mm
- > Complies with AS 1478.1-2000
- > Cost effective
- > Able to achieve waterproofing tightness with minimum 300 mm thickness of TamSeal 20 Admix concrete depth

TYPICAL APPLICATIONS

- > Basements
- > Marine applications
- > Water tanks
- > Reservoirs
- > Water retaining structures
- > Civil substructures

TECHNICAL DATA

TamSeal Admix	
Chloride permeability (ASTM 1202-94)	Very Low < 525
Water permeability	< 5.0×10^{-13}
Water penetration (Din 1048.5)	< 15 mm
Shrinkage (AS 1012-13) 28 day	< 600 Microstrains
Chemical resistance	Resists mild acids and caustic materials in the pH range 3 - 12

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

APPLICATION GUIDELINES

For waterproofing concrete, the recommended addition rate for TamSeal Admix is 0.8% - 1.2% by weight of cement. For enhanced chemical resistance please consult with Normet Technical Services to determine the approximate addition rate. TamSeal Admix is added to the concrete at the time of batching. The sequence of procedures for addition will vary according to the type of batch plant operation and equipment.

Note: We recommend a maximum water:cementitious ratio of 0.45. Under normal circumstances a water:cementitious ratio < 0.42 is ideal. The minimum cementitious content is 320 kg/m³.

Ready Mix Plant – Dry Batch Operation

Add TamSeal Admix in powder form to the drum of the ready-mix truck. Drive the truck under the batch plant and add 60% - 70% of the required water along with 140 kg - 230 kg of aggregate. Mix the materials for 2 - 3 minutes to ensure the TamSeal Admix is distributed evenly throughout the mix. Add any additional materials to the ready-mix truck in accordance with standard batch practices.

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Ready Mix Plant – Central Mix Operation

Mix TamSeal Admix with water to form a very thin slurry (e.g. 6 kg - 8 kg of powder mixed with 10 litres of water). Pour the required amount of material into the drum of the ready-mix truck. The aggregate, cement and water should be batched and mixed in the plant in accordance with standard practices (taking into account the quantity of water that has already been placed in the ready-mix truck). Pour the concrete into the truck and mix for at least 5 minutes to ensure even distribution of the TamSeal Admix throughout the concrete.

Precast Batch Plant – Pan Mixer

Add TamSeal Admix to the aggregate, and then mix thoroughly for 2 - 3 minutes before adding the cement and water. The total concrete mass should be blended using standard practices.

Note: It is important to obtain a homogeneous mixture of TamSeal Admix and concrete. Therefore, do not add dry TamSeal Admix powder directly to wet concrete as this may cause clumping and thorough dispersion will not occur. For further information regarding the proper use of TamSeal Admix for a specific project, consult with your Normet technical representative.

Curing

Normal practices for placing and curing concrete should be followed as per local standards.

STORAGE

TamSeal Admix 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 one year can be expected if stored in buckets and six months in bag package.

HEALTH & SAFETY

TamSeal Admix 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.