



Technical Data Sheet

SETSEAL

Single part cementitious waterproofing render

DESCRIPTION

SETSEAL is a pre-packed, single part system in powder form, based on selected cements fillers and chemical additives, which when mixed with the correct quantity of water, produces a mortar that can be easily brush applied to well prepared, sound substrates to provide an extremely tough, durable waterproof render, 2-3 mm thick.

PROPERTIES

SETSEAL's active ingredients combine with the water and free calcium in the substrate to form insoluble crystals, which block the capillaries and prevent the ingress of water. It becomes an integral part of the structure to which it is applied and its chemical action is re-activated if further water appears.

SETSEAL is non-toxic and can be used on both internal and external surfaces. It has an excellent adhesion to the substrates, is

extremely durable and resistant to alkalis. SETSEAL has a degree of elasticity, which will take up some surface movements.

INSTRUCTIONS FOR USE

Mixing

SETSEAL should be preferably mixed mechanically by using an electric drill with paddle attachment. 8 to 9 litres of water is taken in a container and 25 kg of SETSEAL powder is added steadily whilst mixing continuously, until a creamy, homogeneous, lump free mix is obtained.

Priming

The prepared substrate surface should be thoroughly dampened with clean water to minimize suction, ensuring there is no surface water present prior to application of SETSEAL.

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Application

SETSEAL should be applied to the dampened substrate by brush application. Wherever possible, SETSEAL should be applied on the water pressure side of the structure. After a suitable cure period, 1 or 2 further uniform coats should be applied, dependant on water pressure, or SETSEAL TANKING may be applied, depending on conditions. SETSEAL should still be 'green' at the overcoating stage. If the material has cured, it must be thoroughly re-wetted, with all free water removed prior to overcoating.

- a) Two to three coats of SETSEAL will be satisfactory to resist water ingress and protect against damp conditions.
- b) Where hydrostatic pressure exists, a brush coat of SETSEAL should be applied as a primer, followed by one to two coats of 5mm thick trowel applied SETSEAL TANKING (see appropriate data sheet).

Working Time

SETSEAL has a working time of approximately 20 minutes at 30°C.

Mixed material should not be left standing for any length of time prior to application as this will considerably shorten its working life and may lead to flash setting.

STORAGE LIFE

SETSEAL has a shelf life of 6 months when stored unopened in original sealed bags under shade in dry conditions.

COVERAGE

1 to 1.5 kg / sq.m. of SETSEAL powder per coat. Two or three coats are recommended.

PACK

25 kg and 5 kg bag.

ADDITIONAL INFORMATION

SETSEAL can be over coated or rendered with other decorative products from Don Construction Chemicals India Ltd.

Curing

SETSEAL range of waterproofing systems are cement-based products and in common with all such materials must be cured in accordance with good concrete practice. The use of a sprayed on curing aid such as SETCRETE 8 (see appropriate data sheet) or wet hessian combined with polythene sheeting is recommended to prevent rapid drying, especially during the early stages of curing.

The system should be allowed to cure for a minimum of 5 days at 20°C before subjecting to full service.

PRECAUTION

SETSEAL range of waterproofing systems should not be placed when the substrate or ambient temperature is 5°C or less. They should be protected from frost. Maximum recommended water quantity should not be used. These products will not suppress rising dampness.

SURFACE PREPARATION

All leaks and water jets must be stopped using SETPLUG plugging compound.

Substrate must be sound, clean and free from loose particles or laitance or contamination should be wire brushed.

Where cracks are present, they must be treated first depending on the type of crack.

SETSEAL range of waterproofing systems may be applied to fresh concrete as soon as the shuttering is struck. Ensure that all mould release oil has been removed first.

The information given in this data sheet is based on both current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials, as we have no control over methods of application, site conditions, etc.

In view of the continuing research and development being undertaken in our laboratories, we advise customers in their own interest to ensure that this data sheet has not been superseded by a more up-to-date publication. All products are sold subject to our standard conditions of sale, which are available on request.

Field services, where provided, does not constitute supervisory responsibility. For additional information, please contact your local DON representative.

ADDITIONAL INFORMATION ON SETSEAL

SETSEAL is applied to the substrate and the active ingredients combine with the water and free calcium in the substrate to form insoluble crystals, which block the capillaries and prevent the ingress of water.

SETSEAL will still allow the structure to breathe.

SETSEAL becomes an integral part of the structure to which it is applied and its chemical action is reactivated if further water appears.

SETSEAL treated concrete samples were pressure tested up to an average of 60 m – 70 m water head for 24 hours to determine water permeability. Controlled specimen (untreated) measured water penetration of average 80 mm. SETSEAL treated samples measured water penetration of zero to average 5mm.

SETSEAL samples can withstand a hydrostatic pressure of more than 1 MPa.

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